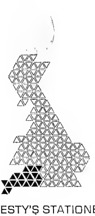
A REGION WITH A FUTURE

A DRAFT STRATEGY FOR THE SOUTH WEST

SOUTH WEST ECONOMIC PLANNING COUNCIL



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Foreword

We have given this report on the South West Economic Planning Region the title *A Region with a Future*. All regions have a future and all planning is about the future. We have appropriated this title for the South West because it best sums up the message of this report. If the South West has a history to be proud of, we can also be thankful for a past which has left a spacious land largely unspoiled. Now, with the 21st century only a generation ahead and the country's population growing in numbers, wealth and mobility, we can foresee the South West as a Region in which more and more people in the future will want to live, work and play. The primary task of planning in the Region is to anticipate that demand. The prospect is exciting and challenges the imaginations of all who share in the responsibility.

This is not to say that the South West presents no more immediate planning tasks. Most of this report is about the period between now and 1981 and the problems which either exist already or can be foreseen to arise within that time. We have outlined ways of dealing with these. Some of these problems go deep. But hope lies in the longer prospect and we have tried always to see the problems and recommend action with the longer prospect in view.

The report has been prepared by the South West Economic Planning Council. The Council have been greatly assisted by the South West Economic Planning Board and by the government departments represented thereon, but the Council alone are responsible for the presentation of the data, the conclusions drawn and the recommendations made.

The report is the corporate responsibility of the Council shared by all members, and all members are in broad agreement with its content as a basis for discussion in the Region. While the Council have worked hard to reach agreement throughout, however, it would be unfair to suggest that every member subscribes to every sentence; nor would it be reasonable, seeing that many members of the Council are also members of authorities and organisations in the Region which will be expected to consider the report and themselves pronounce corporate views.

The report is more than a regional study but less than a regional plan. We have called it a regional strategy because it sets out the lines along which, in the Council's view, the economic and physical planning of the South West should proceed. But it is a *draft strategy*. Central government may not agree with part of it. Its aspirations may compete with the aspirations of other regions. The Council themselves may want to make changes in the light of further study, fresh information and unanticipated events (the *Torrey Canyon* disaster occurred just as this report was being completed).

The immediate step is to have the whole report thoroughly debated in the Region—by local authorities, the representative bodies of industry, commerce and agriculture, and all the other organisations concerned with the economic and social life of the South West. Reference is made in the report to consultation and cooperation with a number of these on particular matters. We shall welcome comments from all and from any members of the public who care to address their comments to us, so that we may take account of their views in our future work. Communications should be addressed, in writing, to the Secretary of the South West Economic Planning Council at the address shown below.

Ronald Tress

RONALD TRESS
Professor R. C. Tress
Chairman
March 1967

South West Economic Planning Council
The Pithay
BRISTOL 1

1 Introduction

PART I
THE REGION AND REGIONAL PLANNING

The Region end a regional plen

1. Four main features combine to distinguish the South West Economic Planning Region from its fellows. They are its large size and great length; its large areas of natural scenic beauty and its pleasant climate; its comparatively sparse population; and the marked contrasts in population and industrial growth between the north and east and the south and west of the Region. Each of these features is an important factor in the making of a regional plan.

2. The Region covers the administrative areas of Wiltshire, Gloucestershire, Dorset, Somerset, Devon, Cornwall and the Isles of Scilly in its 9,000 square miles. It is the second largest of the English economic planning regions and is larger than Wales (see General Reference Map No. 1 in pocket, and Figure 1). As to its great length, from the northern boundary of Gloucestershire to the western tip of Comwall is 240 miles, as far away as are Manchester and Leeds from Brighton. Moreover, it is not physically all of a piece. Draw a line across the Region from, say, Bridport to Bridgwater. What lies eastwards is squarely in southern England: 140 miles or less to London by road from any point. Westwards a great peninsula, widening from 35 to 70 miles across then nerrowing to five, runs 160 miles to Land's End. A regional plan must face the problems of remoteness and the vital importance of communications which this shape imposes.

3. The Region's splendid countryside throughout, its 700 miles of largely unspoiled coastline, and its gentle climate make it a most agreeable place to work in, the country's main holiday area and a favourite resort for people when they retire. In few spots is there any congestion or pressure on living space and the land is free from the ugliness produced in other parts of the country by 19th-century industrialisation. A regional plan must seek a prosperity which, while contributing fully to national economic growth, sustains and makes the most of these amenities.

4. After East Anglia, the South West is the least densely populated of the English regions. The population of the whole Region was 3·6 million in 1964. Forty-five per cent were gathered north of the Mendips and Salisbury Plain: of these, nearly half were in the Bristol-Bath area and there were smaller concentrations at Swindon, Cheltenham and Gloucester. Elsewhere, population besides being generally more sparse has tended to concentrate on the southern coast: in the Plymouth area and at Torbay, Exeter and Poole. South of the Mendips there is no town, inland or on the Bristol Channel coast, with a population above 40,000. A regional plan must meet the different physical planning problems which are represented by this distribution, facing up to urban containment at one extreme and rural depopulation at the other.

5. The marked contrasts in the disposition of population between the remote south west and the parts of the Region in close contact with the West Midlands and South East are a reflection of differences in the disposition of the forces of industrial growth. In the north and east, a young population growing fast by natural increase and immigration is accompanied by a rapid and diverse industrial expansion. In the south and west, the advance of the holiday industry and the enterprise of a small number of firms in each locality are inadequate to counter the decline in agricultural employment or the effects of defence cuts on the Plymouth Dockyard. A regional plan which embraces industrial development and manpower planning must match the contrasting circumstances of the several parts of the Region; it must, at the same time, be consistent.

The legecy of the past

6. Before the Industrial Revolution, the Region was predominantly involved in agriculture and its associated industries. It contained some of the principal woollen textile towns in the country and by the 18th century two main textile areas had emerged, in the Cotswolds and in Devon. The other notable activity was

Fig. 1 Economic Planning Regions of Gt. Britain and Development Areas.

the working of minerals—iron, lead, china clay, copper, tin and coal. Bristol, at one time the second city of the country, was an important port and commercial centre. In the early 18th century the population was greater than most other regions in Britain, and was distributed much more evenly within the Region than it is today.

7. The growth of the new industrial centres in other parts of the country meant that the South West as a whole was no longer among the fastest growing regions. Much of the Region experienced a relative decline in population, and Cornwall, affected by the chronic decline in mining, lost population absolutely between 1861 and 1939. As in other parts of the country, there was a steady movement of labour out of agriculture and of people away from the rural areas to the towns. Particular towns and parts of the Region, however, shared fully in the rapid and thrusting growth of the 19th century. Bristol continued to serve as the urban centre for a large area. Swindon, chosen as a centre for the railways, shared in the prosperity of their heyday. On the southern coasts, the holiday trades grew as incomes rose and as the spread of the railways allowed for easier movement.

Growth in the post-war period*

8. The period following the second world war has seen a gradual resurgence of the South West, which has accelerated in recent years. The regional population increased by some 24 per cent between 1939 and 1964—nearly double the national rate—largely in consequence of substantial immigration from other parts of the country. Though many people came to retire, substantial numbers came ready to work and employment grew rapidly, especially after 1958. Between 1960 and 1964 it expanded by about 7 per cent—nearly twice the national rate of growth. The most rapid expansion was in the service sector but manufacturing employment grew much faster than in the country as a whole. But because the total manpower resources of the Region were increasing all the time, very few inroads were made into the Region's unused reserves of manpower. Unemployment rates, too, remained above national rates for most of the period (after allowance has been made for the seasonal influences which affect the South West more than most), and were particularly high in much of Devon and Cornwall.

9. Taking employees and self-employed together, almost 1½ million people were at work in the South West in 1965. The self-employed, of whom there are more than 50,000 in agriculture alone, are a bigger element in the regional manpower force than in any other region. The so-called extractive industries† are of considerable significance. One in nine of all agricultural workers in Great Britain is employed in the South West, and one in four of the country's mining and quarrying workers outside the coal industry. There were 54,000 employed in agriculture, forestry and fishing in 1965 and, with the large numbers of self-employed farmers, the total manpower force in agriculture and horticulture was probably well over 100,000. The 17,000 persons employed in mining and quarrying include the workers in the china clay industry which is unique to the Region. The manufacturing sector provided work for 402,000 persons in 1965, about 30 per cent of the employed population compared with 38 per cent nationally. The sector has few of the traditional heavy basic industries, and there is wide representation of modern capital and consumer goods industries. In some cases—the aircraft and aerospace industries and tobacco, for example—the Region contains a sizeable share of the national total. The service sector, partly as a result of the Region's holiday industries, is rather larger than the national average. Services and the construction industries together provided work in 1965 for more than 850,000 employees—64·3 per cent of the employed population of the South West compared with 47·0 per cent nationally—and there were probably another 100,000 self-employed.

10. In terms of growth of population and employment, then, the South West as a whole has a prosperous and expanding economy. But the contrast between the north and east and the south and west within the Region persists. Incomes in the Region are lower than the national average, but higher than in Scotland, Wales or the Northern Region. The differences in the level of incomes within the Region are, however, greater than the differences between the Region and the country as a whole. Personal incomes—particularly employment incomes—tend to decline as one moves from east to west, although this is not offset to any appreciable extent by a lower cost of living.

The sub-regions

11. That the South West cannot be adequately

*Employment statistics derive from employment exchange records which combine Poole (in the South West Economic Planning Region) with Bournemouth and Christchurch (in the South East Economic Planning Region). Consequently, the employment statistics shown are for the South West *Standard* Region, which excludes Poole. The Council very much regret the omission from key data of the largest town in Dorset and one of the largest boroughs in the Region.

†To simplify the account, the Industrial Orders of the Standard Industrial Classification (revised 1958) have been grouped as follows:

Extractive industries	Industrial Orders I and II
Manufacturing industries	Industrial Orders III-XVI
Construction	Industrial Order XVII
Service industries	Industrial Orders XVIII-XXIV

discussed in terms of a single unit is self-evident. The Council, therefore, early addressed themselves to the question of how best to divide up the Region for study purposes. The proposition is easier than the exercise. The desirability of identifying separate physical areas with common features and problems has to be reconciled in some cases with the necessity of defining the areas for which separate statistical data can be made available. In the outcome, for study purposes only, the Council have divided the Region into four sub-regions, further sub-divided into nine sub-divisions (see Figure 2 for a map of the sub-regions and sub-divisions and Appendix 1 for the exact areas covered by them). Further study has confirmed the Council's view that these divisions correspond approximately with areas whose economic problems and needs are common, and which yet may not be common to the Region as a whole. At the same time, they recognise the constraints imposed by statistical data which are administrative in origin (in particular, from the local authorities and the employment exchanges) and which can lose reliability in over-refinement. The next part of this chapter offers a view of each sub-region in turn.

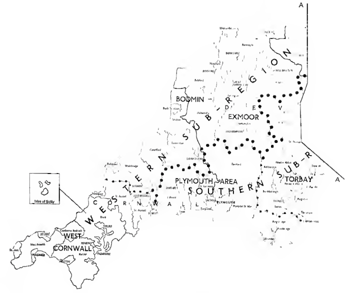
The Northern Sub-Region

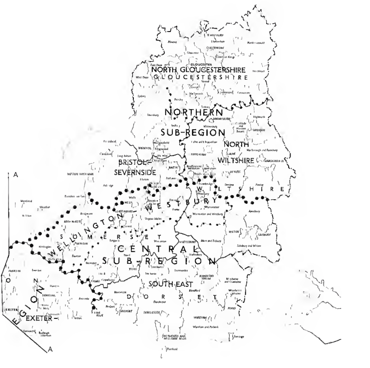
1965 civilian population: 1,649,200

employment: 677,700
(Extractive 3%; Manufacturing 38%; Construction 8%; Services 51%)

12. The Northern sub-region is the most prosperous and fastest growing of the sub-regions. It contains the areas where population growth has been most concentrated, such as Bristol-Severnside, Gloucester-Cheltenham and Swindon. The rapid economic growth of the area will be further stimulated by the great

Fig. 2 South West Region: Economic Planning and Administrative Divisions.





Regional boundary	—·—
Sub Regional boundaries	● ● ●
Sub Divisional boundaries	• • •
Counties	DORSET
County Boroughs	BRISTOL
Municipal Boroughs	TAUNTON
Urban Districts	Tutpend
Rural Districts	Tutington

Boundaries as at 1st April 1966

improvement in communications created by the Severn Bridge and associated motorways. The sub-region contains, at Bristol and Bath, two of the three universities of the Region. It offers exciting prospects for economic growth. Its potential has been recognised by the Government's decision to undertake a study of its suitability for large-scale development as part of a national search for suitable areas to accommodate the extra 20 million people expected to be living in this country by the end of the century.

13. Bristol, with an important port, has well diversified industries, including aircraft and aerospace, tobacco, paper and printing and engineering, which have grown considerably since the second world war. The city, the eighth largest in Great Britain outside London, is the Region's largest centre for the whole range of administrative, commercial, educational and other services. Nearby Bath, with some industrial activities, is also important as a centre for Ministry of Defence administration as well as a place of great historic and architectural interest. The city's planning and traffic problems have been the subject of an intensive study by Colin Buchanan and Partners.*

14. The Gloucester-Cheltenham area has grown rapidly during and since the war, attracting new industries and population. Inevitably, perhaps, this growth has brought with it traffic and congestion problems which are aggravated by the nearness to each other of Gloucester and Cheltenham, and by the physical restrictions imposed by the Cotswold scarp to the south and east and the Severn flood plain to the west. The local authorities concerned are at present undertaking a land use study of the area.

15. In the Swindon area, the motive force of rapid growth has been London overspill. The decline of British Railways' employment since the early 1950s has been more than compensated for by the inflow of new industry and expansion of local engineering industry generated by the town development scheme. A report by Llewelyn-Davies Weeks and Partners on the feasibility of planned development in the Newbury-Swindon area was published in March 1966.† The main recommendation was that planned development should take place in the Swindon area to absorb an increased population of 126,000 by 1981, with the total population of the town rising to about 400,000 by the end of the century. The Government decided that this proposed rate of growth was too ambitious. The new proposal is for a planned intake of 75,000 between now and 1981. Wiltshire County Council, Swindon Borough Council and the Greater London Council are now examining the feasibility of expansion on this scale

16. The sub-region has two other areas of slow but steady growth: Stroud-Dursley and West Wiltshire. Both show a pattern of small towns and villages and industrial diversity, although the emphasis in Stroud-Dursley is on engineering and in West Wiltshire there are important rubber and food processing activities as well as large engineering industries.

17. In two areas—the Forest of Dean and the Cotswolds—population has declined. Coal mining has now largely ceased in the Forest of Dean and efforts to attract new industry have met with only limited success, principally at Mitcheldean and Lydney. Although scenically attractive, particularly in the Wye Valley, the area has a difficult terrain, with shallow soils and much woodland and is poor from an agricultural viewpoint. In contrast, the Cotswolds—classified as an Area of Outstanding Natural Beauty—have a thriving agriculture but population has fallen with the decline of rural industries and increased mechanisation on the farms.

The Central Sub-Region

1965 civilian population: 766,500

employment (excluding Poole): 241,600 (Extractive 6%; Manufacturing 26%; Construction 9%; Services 57%)

18. The Central sub-region is predominantly rural. The settlement pattern is based on a large number of small and medium-size towns, many of which have an industrial as well as a market town economy.

19. In the north-west is a string of towns of which the largest are Taunton and Bridgwater, both on the A38 road and only 11 miles apart. Both have experienced steady growth in recent years. Taunton's mainly administrative and service centre functions complement Bridgwater's mainly industrial character. The rest of the string are all within 20-30 miles of Bath or Bristol.

20. Yeovil, a small manufacturing town where steady growth is based on aircraft production and gloving, is in a cluster of small towns on either side of the Somerset-Dorset boundary. Salisbury is the centre of an agricultural area which extends into Hampshire and the South East Region.

21. In the south-east, Poole has grown rapidly since the war and is the largest town in the sub-region. Separate employment statistics for Poole are not available, but it is estimated

*Colin Buchanan and Partners—*Bath A Planning and Transport Study*, 1965

†Llewelyn-Davies Weeks and Partners—*A New City: a study of urban development in an area including Newbury, Swindon and Didcot*, HMSO 1966

that there were about 34,000 employees in the town in 1965. Its future is bound up with that of the Bournemouth area and its growth can be expected to continue. Further along the South Dorset coast, there is extensive interest in the holiday trades. Weymouth has grown steadily recently as a resort and residential town, and it is a packet port for the Channel Islands.

The Southern Sub-Region

1965 civilian population: 768,100
employment: 269,000
(Extractive 5%; Manufacturing 22%; Construction 9%; Services 64%)

22. Outside Plymouth, and to a lesser extent Exeter, Newton Abbot, Paignton and Tiverton, the Southern sub-region has little manufacturing industry and so agriculture and the service trades, particularly those which support tourism, are crucial to the economy. Fishing has declined and is now mainly based on Brixham. Boating and yachting are of increasing importance along the coast. The rich soils of the Exe Valley and the area in the extreme south of Devon support a prosperous agriculture, but soils on and around Dartmoor are poor. The sub-region possesses mineral wealth, particularly along the flanks of Dartmoor. Although there is no longer tin and copper mining, the extraction of china clay, ball clay and granite remain important.

23. The main area of population growth is Exeter-Torbay. Elsewhere, the population has been increasing relatively slowly, as in the Plymouth area, or has been declining, as in the extreme south of Devon and in East Cornwall.

24. The relatively fast rate of population growth in the Exeter-Torbay area in recent years has been due in part to the influx of retired people. The consequent age structure of the area, and for that matter of much of the sub-region, throws a strain on the social services, particularly the hospital and elderly people's services. Exeter, the county town, is the administrative and distributive centre for much of Devon and, with its university, is also an educational centre. Along the coast, Torbay and the smaller holiday resorts are growing and there is considerable pressure for urban development along the coast.

25. Plymouth is the second city of the South West and a focal point for much of Devon and Cornwall. Although it benefits from the holiday trade, it is primarily a dockyard and industrial centre. Before the war, industrial activities were centred almost entirely on the Admiralty Dockyard at Devonport which, although it has declined in employment since the war, is still Plymouth's major source of jobs. Post-war attempts to attract new industry to Plymouth have met with some success, particularly in the period 1960–61 when the city had Development District status. Employment in the Plymouth area grew rapidly between 1960 and 1962, but since then has been declining, and male employment in 1965 was lower than in 1962.

The Western Sub-Region

1965 civilian population: 444,400
employment: 137,600
(Extractive 14%; Manufacturing 13%; Construction 9%; Services 64%)

26. Population in this, the most sparsely populated of the sub-regions, is mainly concentrated along the coast, with only a third of the three dozen or so towns located inland. The sub-region has experienced a considerable and continuing rural depopulation, particularly in north-west Devon. Allied to this, there is a population age structure relatively older than the regional average, because of the migration of younger people in search of jobs elsewhere, and to some extent an influx of retired people. The main population concentration is in the Camborne-Redruth area—a consequence of the mining boom of the last century. Tin and copper mining have declined steadily from their peak in the 1870s. They have left a legacy of derelict mine shafts and tips and bad housing as well as a lively reputation for mining technology. However, the working of minerals—china clay, granite and tin—remains of considerable importance to the sub-regional economy. China clay mining in the St. Austell area is expanding, and the industry does an important export trade.

27. Agriculture and horticulture are important. The horticulturists benefit from the favourable climate but, particularly in the Isles of Scilly, suffer from remoteness from their main markets. Farmers in some areas have to contend with poor, infertile soils. Farms are generally small family businesses; Cornwall has almost twice the national proportion of land on holdings of less than 50 acres. Fishing, now based chiefly on Newlyn, has declined.

28. As in the Southern sub-region, the economy of the Western sub-region is considerably dependent on the tourist and holiday trades, which make for a marked seasonal rhythm in the economy. Employment reaches a peak in the summer months when the demands of the holiday trades are highest; the winter brings a relatively high rate of unemployment. Apart from the seasonal fluctuations, there is a hard core of unemployment in parts of the sub-region, and unemployment rates have tended to rise since 1954.

29. Only 5 per cent of the employment in manufacturing industries in the South West is located in the Western sub-region, and this

is largely concentrated in West Cornwall, with production of mining equipment in the Camborne area, and ship repairing notably at Falmouth.

30. Under the Local Employment Acts 1960 and 1963, areas within the sub-region with high unemployment figures qualified as Development Districts. Between 1960 and 1965, as a result of the encouragements deriving from this status and the initiative of some of the local authorities, 23 new manufacturing units were introduced to the sub-region, 16 in areas with Development District status. The majority of jobs provided in the Development Districts were in the Camborne-Redruth-Falmouth area of West Cornwall, and to a lesser extent in the Bideford area of North Devon, with the remaining establishments scattered over the rest of the sub-region. The net addition to manufacturing jobs in the sub-region between 1960 and 1964 was not, however, enough to counterweigh the loss of employment in agriculture.

31. Since August 1966, most of the sub-region has been within the South-western Development Area (see Figure 1), drawn to encompass a wide range of factors including depopulation as well as unemployment. Investment grants are being offered, at 40 per cent of the cost of new plant and machinery (compared with 20 per cent nationally), to qualifying manufacturing, construction and mining and quarrying industries. The rate of grant for eligible capital expenditure incurred between 1st January 1967 and 31st December 1968 has been increased to 45 per cent in the Development Areas, and to 25 per cent nationally. It is too early to judge the effect.

Regional planning and regional strategy

32. Regional planning in the South West, as in the other seven English regions, is the joint responsibility of the Economic Planning Council and the Economic Planning Board. The former are private persons appointed as individuals and not as representatives, but chosen to reflect the different ideas, interests and experiences in the local authorities, the industrial and agricultural world, the trade unions, the universities and various other activities in the Region. The latter are civil servants responsible to their Ministers and include the chief regional officers of all the government departments concerned with planning matters.

33. The terms of reference of Economic Planning Councils at their appointment in April 1965 were:

a to assist in the formulation of regional plans, having regard to the best use of the region's resources;

b to advise on the steps necessary for implementing the regional plans, on the basis of information and assessments provided by the Economic Planning Board;

c to advise on the regional implications of national economic policies.

Since these terms of reference were drawn up, however, experience has recognised two qualifications which must be inserted into the simply stated objectives of formulating and advising on the implementation of regional plans.

34. First, it has come to be recognised that it is too soon in the experience of regional planning to aim at achieving a set of government-approved plans for all regions which will neatly dovetail with each other and which, in numbers of population, distribution of manpower, growth and location of industry, scale and disposition of public investment, etc., will in aggregate coincide with the forecasts, intentions and capabilities envisaged by the Government for the economy as a whole. The immediate aim should be for each council to state their own 'reasonable aspirations' for their regions, recognising that these aspirations will in part be competitive with each other for population, industry, government finance, etc. Reconciliation there must be, but it will be brought about partly by government decisions taken when necessary in the course of events and partly by the passage of time.

35. Secondly, it has also come to be recognised that, before any regional plan can be drawn up related to a specific time scale, with the resources of the region fully analysed and policies costed, much study needs to be done of both the desirable and the possible. Meantime, inescapable decisions are being taken—for example, in public investment—which may have far-reaching effects upon the future of the regional economy. The immediate aim should be for each council to provide themselves with a 'regional strategy' by which recommendations can be made on decisions affecting their regions which cannot wait, and advice be given immediately on the implications for their regions of national and local policies.

36. The document here presented, therefore, is not an official formulation which has the approval of the Government. It embodies a wide range of factual material relating to the South West Region, which has been assembled mainly by the Economic Planning Board, the like of which, before the present machinery was established, was prepared by government departments for some other regions and published in 'regional studies'. But the presentation of this material is the responsibility of the Council as are the conclusions drawn from it. The statements of policy which follow are

tha Council's *reasonable aspirations* for the Ragion.

37. Nor is the document a regional plan. It states a *regional strategy* on the basis of which, in the Council's view, the preparation of a regional plan for the South West should go forward. It indicates the discussions and studies which have to be undertaken before the stage of a regional plan can be reached. Meantime, it provides the supporting case for immediata decisions which the Council need to press upon the Government in the interests of the Region and the frama of reference by which advice can be given on the regionel implications of national economic and physical planning policies.

38. The strategy presented is a *draft strategy* in two senses. First, it is put before the Region es a draft upon which the public may comment. With certain bodies—in particular, tha local planning authorities, public corporations and representative organisations of industry and the trade unions—the Council have already had some preliminary discussions on particular points and they intend to take these a great deel further, inviting the authorities and organisations to contribute improvements and additional meteriel to the draft as well as reasonable alternatives to whatever in it they may dislike. A general invitation to put their observations on racord is also issued to a wider renge of institutions.

39. Secondly, time itself will demand more than one redrafting. Any strategy or plan bagins to fell out of date as soon as it is published. What people do and what governments decide, increased knowledge of the facts and technological davelopments which change them—all these compel revisions in forecast trends and adopted programmes. For instence, the Council have made no allowance for the possibility that the United Kingdom may join the European Economic Community.

40. In particular, it is to be emphasised that the Council have not had to budget for a costed and dated programme, nor is the information available et this time for such an exercise. The Council have deliberately resisted including for popularity's sake proposals which they saw to be 'unreasonabla' and have done their best to recognise the limitations in immediately available resources. But, on a long-term view to 1981, it is fair to say thet the Council have been reesonably optimistic about the rete of growth to ba expected of the national economy. Meny of the proposals and recommendations put forward by the Council for tha Region will contribute to that achievement, but there are some—for exemple, in the estimated requirements for capital investment—which may be dependent upon the national rate of growth.

2 Population

PART II
THE REGION'S PEOPLE

The present population

41. The South West Region, with an estimated civilian population in mid-1964 of 3,583,000 (6·8 per cent of the total population of Great Britain), is the least densely populated of the English economic planning regions after East Anglia. There are, however, pronounced differences within the Region. The north and east are comparatively densely populated with an age and sex structure broadly similar to the average for Great Britain. The south and west are comparatively sparsely populated, with relatively low proportions of children and people of working age and relatively high proportions of elderly people.

42. Figure 3 shows more precisely how unevenly the population is distributed. Nearly half is concentrated in the north and east and there are other, lesser, concentrations along the southern and western fringe of the Region—in the Plymouth and Poole areas and along the holiday coastline. In contrast, the heart of the Region is sparsely populated. The average density is below 0·3 persons per acre over much of east Cornwall, mid and north Devon, the Cotswolds and the Wiltshire and Dorset Downs—compared with an average density of 0·6 persons per acre for the Region as a whole and 0·9 persons per acre for Great Britain.

43. Another feature of the settlement pattern is the small number of large towns and the large number of small towns. There is no major conurbation. The two main cities, Bristol and Plymouth, with their adjacent urbanised areas, constitute the largest concentrations with estimated populations of about half a million and a quarter of a million respectively. The only other sizeable concentrations of population are in the Gloucester-Cheltenham area (about 200,000), the Poole area (about 120,000), the Swindon area (about 118,000) and the Torbay area (about 100,000).

44. Outside these there are only two cities, Exeter (about 90,000) and Bath (about 80,000), with populations exceeding 50,000. There are nine towns with populations of between 20,000 and 50,000. There are over 150 small towns with less than 20,000 population, and these between them contain nearly a quarter of the Region's population. Figure 4 shows that these small towns are fairly evenly distributed throughout the Region; they have particular economic and social importance in the more sparsely populated western areas.

45. The distribution of civilian population among the sub-regions and sub-divisions referred to in Chapter 1 is shown in Table 1.

TABLE 1

Estimated civilian population, mid-1964

Area	Population No.	Proportion of regional population %
SOUTH WEST	**3,583,820**	**100·0**
Northern	1,625,830	45·4
North Gloucestershire	436,690	12·2
Bristol-Severnside	870,400	24·3
North Wiltshire	318,740	8·9
Central	757,670	21·1
Wellington-Westbury	235,610	6·6
South East	522,060	14·5
Southern	759,420	21·2
Exeter-Torbay	428,880	12·0
Plymouth Area	330,740	9·2
Western	440,900	12·3
West Cornwall	241,150	6·7
Bodmin-Exmoor	199,750	5·6

46. Table 1 brings out the demographic dominance of the Northern sub-region. Just over 45 per cent of the Region's population lived in this area in 1964, with the largest concentration in the Bristol-Severnside sub-division which centres on Bristol. The Central sub-region and Southern sub-region each contain about one-fifth of the total population of the Region. In the Central sub-region, most of the people live around the periphery: in Taunton, Bridgwater and the towns south and

Fig. 3 Population Density: Census 1961.

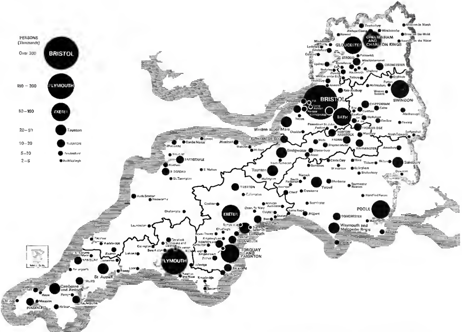


Fig. 4 **Urbanised Areas by Estimated Population, 1964.**
Urbanised areas refer to towns and include peripheral development in adjacent rural districts.

east of the Mendips, in Salisbury, or in Poole and the resorts along the Dorset coast. In the Southern sub-region, population in the east is concentrated principally in Exeter and its environs and along the coast, while in the west, Plymouth and its environs provide the main centre. The hinterland of these areas is very sparsely populated. The Western sub-region contains only about one-eighth of the Region's population. The Bodmin-Exmoor sub-division is the most thinly settled part of the Region; only in the Bernstaple-Bideford area is there any sizeable concentration. The West Cornwall sub-division, despite its geographical remoteness, has a higher population density with concentrations in the metalliferous and china clay mining areas around Camborne-Redruth and St. Austell and in the small ports and holiday resorts along the coast.

47. There are some important differences between the age and sex structure of the regional population and that of Great Britain. Appendix 2 shows the distribution of the regional population in 1964 by broad age and sex groupings and Appendix 3 compares the figures with the national population structure. The data are summarised in Table 2.

48. Compared with the average for Great Britain, the population of the Region as a whole tends towards the elderly, with relatively low proportions in the working age groups; the proportion of children is not markedly below the national average. What has to be noted are the wide disparities between the different parts of the Region. In the Northern sub-region, the structure approximates fairly closely to the national structure. For the rest of the Region, broadly speaking the further south and west one goes the more marked become the differences from the national structure and the 'older' becomes the population. Even within some of the sub-regions, however, there are disparities. In the Southern sub-region, for example, the relatively low proportions of children and of men of working age combined with the very high proportion of old people in the Exeter-Torbay sub-division contrast sharply with a population distribution in the Plymouth Area sub-division which is closer to the overall regional distribution.

Past trends

49. Appendix 4 shows the changes in the total population of the Region since 1821 (see also Figure 5). Between 1821 and 1939, the South West experienced a persistent decline in population relative to the rest of the country, mainly through sustained net emigration to other parts of England where an industrial expansion was taking place which left the South West largely untouched. The Region's population increased by some 65 per cent in this period, from 1,760,000 to 2,930,000, but this was a slow rate of growth compared with the national increase of 228 per cent, and the Region's share of the total population of Great Britain fell from 12½ per cent in 1821 to a little over 6 per cent in 1939. The population became older on average, with the emigration of young people and the movement of older people into the Region for retirement. In consequence, the rate of natural increase of population (i.e. excess of births over deaths) was low compared with the national rate.

50. The overall trend concealed contrasting experiences in the different parts of the Region. The north and east, especially the Greater Bristol area, emerged as the dominant economic force, attracting an increasing share of the Region's population and maintaining an age structure approximating to the national average. Most other parts suffered a relative decline in population, particularly the rural areas, and in Cornwall between 1861 and 1939 the decline was absolute; some coastal areas had offsetting gains in the 20s and 30s of this century with the expansion of the holiday trade and the

TABLE 2

Indices of age and sex of civilian population, 1964

Area	Children	Working age		Elderly	
	Both sexes 0–14	Males 15–64	Females 15–59	Males 65 and over	Females 60 and over
GREAT BRITAIN	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**
SOUTH WEST	**98·7**	**97·8**	**97·3**	**120·0**	**114·4**
Northern	101·7	100·9	98·2	104·4	102·9
Central	99·6	96·5	96·5	126·7	116·3
Southern	93·0	94·6	96·6	137·6	131·7
Western	93·0	95·3	96·6	140·0	128·8

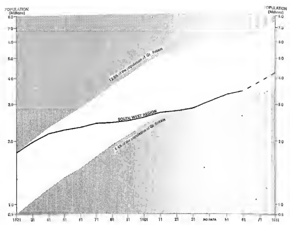


Fig. 5 Gt. Britain and South West Region: Population Changes, 1821-1981.

a The proportion of the total population of Gt. Britain living in the South West Region at each Census date since 1821 has ranged between 12·5% at 1821 and 8·4% (in 1931).

b **The population in the Region recorded at each Census is plotted above on a logarithmic scale; populations equivalent to 8·4% and 12·5% of the Gt. Britain totals are also plotted, thereby affording a comparison of the rates of population growth in the South West and the country as a whole and illustrating how the Region's share of the national population has fluctuated. A guide to post-1961 trends is provided by the mid-year civilian population estimates and future projections.**

growing interest in retirement to the South West. Either way, for most rural and coastal areas, the result was a population structure older than the regional average.

51. The period from 1939 to 1964 saw some reversal of the long-term trends of the previous hundred years, with the Region making substantial gains of population by immigration; in consequence, despite a continuing low rate of natural increase, the South West enlarged its share of the total population of Great Britain. The population of the Region increased by about 700,000 in these 25 years and the rate of increase, some 24 per cent, was nearly double the national rate of increase. The distribution of this growth tended to follow the already established pattern, with population increases concentrated in the north and east and on the southern coast, although the last decade saw some slight softening of the contrast between the north and east and the south and west of the Region.

Natural change and migration

52. The importance of migration in this reversal of past trends can be seen in Appendices 5 to 7. Between 1939 and 1954, 44 per cent of the net growth in population was due to natural increase and 56 per cent was the result of net gains from migration into the Region. In the next decade, 1954-64, natural increase accounted for 42 per cent of the increase in the civilian population (excluding the estimated increase arising from members of the Armed Forces returning to civilian life) and net immigration accounted for 58 per cent. Moreover, the trend was intensified in the latter years of the decade; between 1961 and 1964 the proportion of civilian gains due to net immigration rose to 60 per cent.

53. Within the Region, however, there have been significant exceptions to the new trend, as can be seen from the summary in Table 3 of the distribution of the Region's population growth in the decade 1954–64, and from Map No. 2 in the pocket. In the Northern sub-region, which attracted about half the total net immigration into the Region in the period, natural increase was both numerically and proportionately greater. In the Plymouth Area sub-division, the gains from natural increase were partly offset by migrational losses; in the Bodmin-Exmoor sub-division, the losses exactly balanced the gains. Elsewhere in the Region,

TABLE 3

Distribution of civilian population growth, 1954-64

Area	Total growth		By natural increase		By net inward movement*	
1	2	3	4	5	6	7
	No.	%	No.	%	No.	%
SOUTH WEST	**+322,700**	**100**	**+123,200**	**100**	**+172,000**	**100**
Northern	+183,900	57	+ 86,200	70	+ 85,500	50
Central	+ 78,200	24	+ 27,100	22	+ 45,400	26
Southern	+ 50,500	16	+ 8,000	6	+ 36,500	21
Western	+ 10,100	3	+ 1,900	2	+ 4,600	3

*Includes planned overspill but not gains from run-down of Armed Forces. Hence columns 4 and 6 do not add up to column 2.

population changes followed the regional pattern, but the balance between natural increase and migrational gains varied considerably. The Wellington-Westbury sub-division tended to form the divide between the relatively high natural increase and migrational gains of the north and east, and the substantial migrational gains in the south and west where natural growth was low. The Exeter-Torbay sub-division had the highest rate of increase by immigration, but also recorded an excess of deaths over births.

Composition and distribution of migration

54. Reference so far has been to *net* immigration into the South West—that is, the difference between the numbers of people who have moved into the Region or its sub-regions and sub-divisions and the numbers of people who have left. Very little information is available about numbers of migrants into and out of the Region separately, about their origins and destinations, or about their sexes and ages. The 1961 Census indicates that, between April 1960 and April 1961, each of the six counties in the Region had a net migrational gain from the rest of the country, with a slight predominance of females over males. Somerset and Wiltshire had overall net gains from migration in this one-year period; Cornwall, Devon and Gloucestershire experienced net losses; in Dorset gains and losses balanced. The younger working age groups (15–44 years) were predominant in net immigration into the Greater Bristol area in 1960–61, whereas the groups of older working-age and retirement age formed the largest proportion of net immigration into Devon and Cornwall. There is a continuing outward migration or overspill from Bristol, and to a lesser degree from Plymouth, into the neighbouring urban and rural areas.

Changes in age and sex structure

55. The effects of the recent trends in natural change and immigration on the age and sex structure of the regional population are shown in Appendix 8 and Figure 6. In the ten years between the 1951 and 1961 Censuses, the changes in the age and sex groups in Great Britain and in the Region were similar in direction and for the most part in degree. The period was one of rapid population growth in the South West but, like the country as a whole, the Region experienced only marginal changes in numbers of people of working age. Nationally and regionally there were increases among the children, the older working-age groups and the old people, and decreases among the younger working-age groups. The regional rates of decrease of young working-age men were roughly double the national rates. So were the regional rates of increase of elderly men. The rates of decrease of young working-age women were rather lower than nationally. As Table 4 shows, the changes were consistent throughout the Region.

56. Some assessment of the influence of recent migration on the adult population can be obtained by assuming that the 1951 population had stayed put and projecting to 1961 the number of males and females in each age group, at assumed survival rates. This theoretical population for 1961 can then be compared with the actual distribution recorded by the 1961 Census: the observed differences will be the effect of migration in 1951–61.

57. While the limitations of such an exercise must be amphasised, some broad general conclusions emerge. The Northern sub-region gained chiefly in the working age groups: around three-quarters of the total net immigration into the Region of people in the working-age groups was in this sub-region. The Central

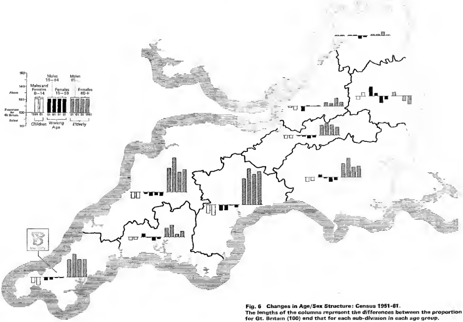


Fig. 6 Changes in Age/Sex Structure: Census 1951-61.
The lengths of the columns represent the differences between the proportion for Gt. Britain (100) and that for each sub-division in each age group.

TABLE 4

Changes in age/sex distribution, 1951-61 Census enumerated population

Per cent

Area	Children		Working age				Elderly			
	Both sexes 0–14		Males 15–64		Females 15–59		Males 65 and over		Females 60 and over	
	1951	1961	1951	1961	1951	1961	1951	1961	1951	1961
SOUTH WEST	**21·4**	**22·5**	**32·3**	**31·2**	**30·5**	**29·1**	**5·2**	**5·5**	**10·6**	**11·7**
Northern	22·1	23·3	32·6	32·0	30·9	29·5	4·6	4·7	9·8	10·5
Central	21·3	22·6	33·0	31·1	30·0	29·8	5·2	5·7	10·5	11·8
Southern	20·6	21·2	31·5	30·2	30·8	29·0	5·6	6·2	11·5	13·4
Western	20·6	21·2	31·1	30·3	31·0	29·0	5·7	6·4	11·6	13·1

sub-region received substantial gains in all age groups, but with the emphasis on melee of working age. In the Southarn sub-region, tha gains of persons of employment age were small, and the influence of the coastal retirement areas is clearly shown in the geins among the old. In the Western sub-region, geins among the old were partly offset by losses in tha working-aga groups.

HM Forces

58. The analysis so far hes related to the civilian population of the South West, but mention must also be made of members of HM Forces. The Region contains many HM Forces' training areas and airfields perticularly in Wiltshire and Dorset, es well as Naval Dockyerds at Plymouth and Portland. The run-down of the Armed Forces in recent years has considerebly reduced their regional importance but, locally, tha concentrations are still significant, particularly in the North Wiltshire, South East and Plymouth Area sub-divisions. The high rate of natural increase characteristic of young service families can have a big effect on the demographic structure of sparsely populated areas.

Summing up

59. The pattern of population growth es it emerged from the 19th century remains the broad pattern today: the concentration and growth of e younger population in the north and east of the Region, and an ageing end more-slowly growing population elsewhere. If the present trends of high rates of natural increase and eubstantial immigration of the younger working and fertile aga groups into the north and eest continue, it will be bacause here there are continuing opportunities for economic development for which these groups provide the necessary additional labour force. The low rates of natural incraase and older ege structure which are typical of the south and west of the Region are due in pert to its continuing popularity as a retirement area; but they also reflect the fact thet here there have been relatively few naw developments on a scale sufficient to retain and attract population, aspecielly the younger age groups, in compensation for the long-tarm decline in egricultural and mining employment.

3 Manpower

PART II
THE REGION'S PEOPLE
(cont'd.)

60. The basis of population distribution is largely employment opportunity. This chapter examines the present pattern and recent trends in the Region's manpower, its geographical distribution within the Region, its distribution between economic sectors, and the extent to which it is utilised.*

61. In 1965 there were 2¾ million people over the age of 15 in the South West, excluding Poole, and about 1½ million were in jobs or actively seeking them. Table 5 shows that the South West had a smaller than average share of employees but a larger than average share of self-employed, HM Forces, and non-employed.

THE PATTERN OF CIVILIAN EMPLOYMENT

62. The estimated distribution of employees in employment and self-employed people between the main economic sectors is shown in Table 6. The bulk of employment in the South West, both for employees and self-employed, is in the service industries. Manufacturing industries provide more than a quarter of all employment for paid workers but for only about one in 20 of the self-employed. The proportions are reversed in the extractive industries. Nearly a tenth of both employees and self-employed are in construction.

The pattern of paid employment

63. There were about 1·33 million employees in employment in the Region, excluding Poole, in 1965: 5·7 per cent of total employment in Great Britain, compared with the South West's 6·8 per cent share of the home population (see Figure 7). The features of the Region's employment structure referred to in paragraph 62 are strikingly illustrated in Figure 8.

64. Appendix 10 compares the 1965 distribution of employment among broad industrial groups in the South West with the national distribution. With less than 6 per cent of all employment in Great Britain and only 4·5 per cent of all manufacturing employment, the South West cannot be reckoned as one of the major industrial regions. In certain activities, however, it carries more weight than the overall position indicates. Examples of these are: in the extractive sector, agriculture, forestry and fishing (with more than 11 per cent of all

*See Appendix 3 for a note on the employment statistics used in this chapter

TABLE 5

Home population over 15 years, employment and non-employment, 1965*

Population	Males '000	Females '000	Total '000	Share of GB total %
Home population (aged 15 and over)	1,335	1,447	2,782	6·8
Employees (employed and unemployed)	872	471	1,343	5·7
Self-employed	128	26	154	9·2
HM Forces	50	2	52	12·3
Non-employed	285	948	1,233	8·1

*South West Region, excluding Poole

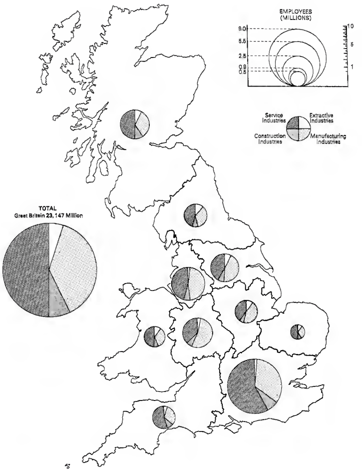


Fig. 7 Employment Structure of Gt. Britain and the Planning Regions: mid-1995.
The area of each circle represents the total number of employees in employment; the sectors show the distribution between the four major industrial categories.

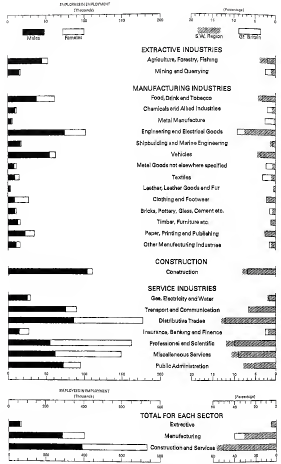


Fig. 8 The Pattern of Employment in the South West: mid-1965.
The lengths of the left-hand columns represent the number of employees in employment in each industrial order of the Standard Industrial Classification. The number of male employees is indicated by the solid portions of the columns. In the columns on the right-hand side, the hatched portion represents for each industrial order the percentage of total employment in the Region and the outlined portion indicates the comparable percentage for Gt. Britain.

TABLE 6

Estimated distribution of employees in employment and self-employed people, 1965*

Sector	Total civilian employment		Self-employed	Employees in employment	
	'000	Share of South West total %	'000	'000	Share of South West total %
Extractive industries	121	8·2	50	71	5·4
Manufacturing industries	409	27·6	7	402	30·3
Construction	126	8·5	14	112	8·5
Service industries	824	55·7	83	741	55·8
Total	1,480	100·0	154	1,326	100·0

*South West Region, excluding Poole.

agricultural employees in Great Britain); and, in the manufacturing sector, food, drink and tobacco manufacture, shipbuilding, and vehicle production (reflecting the large regional aircraft and aerospace industry). Paragraphs 68–77 contain a fuller analysis of employment in the Region.

The pattern of self-employment

65. The self-employed (including employers) form a particularly significant element in the Region's labour force. Precise estimates of the extent and detailed pattern of self-employment are difficult to obtain, but the best estimate available, based on the 1961 Census, is that there were some 150,000 self-employed in the Region at that date, five-sixths of whom were males. The self-employed are a higher proportion of the labour force in the South West than in any other region (about 11 per cent of total employment in the Region in 1965 compared with about 7 per cent in Great Britain). The numbers of self-employed are nevertheless a diminishing proportion of the Region's labour force since, while numbers of employees have been increasing in recent years, the numbers of self-employed are known to have remained fairly steady.

66. There is little information about the industrial composition of the self-employed. Table 7, based on information provided by the 1961 Census, gives the best estimate possible although the figures, particularly for females, need to be treated with caution. It brings out the importance of the extractive industries (almost entirely agriculture) in male self-employment in the Region, and of the distributive trades in female self-employment.

67. Appendix 11 shows that, within the Region, the self-employed are most heavily concentrated in Cornwall, Devon and Dorset; for example, the self-employed accounted for about 21 per cent of the total male working population in Cornwall in 1961 and about 11 per cent of the total female working population, compared with 12 per cent and 6 per cent respectively in the Region as a whole. This pattern is mainly attributable to the greater importance of agriculture in the economy of these parts of the Region and to the higher proportion of self-employed among those engaged in agriculture.

THE MAJOR SECTORS OF EMPLOYMENT

The service and construction sectors

68. Table 6 has shown that the service and construction industries together are the dominant sector in the Region's employment structure. Besides construction the largest industrial orders, all employing more than 100,000 workers in 1965, are distribution, professional and scientific services, and miscellaneous services (including hotels and catering). All these activities accounted for a higher proportion of regional employment in 1965

TABLE 7

Estimated distribution of the self-employed, 1961*

Activity	Males %	Females %
Extractive industries	36	14
Manufacturing industries	4	7
Construction	11	–
Distributive trades	19	41
Hotels and catering	7	18
All other services	23	20

*South West Region, excluding Poole

then in the country as a whole. Other large orders included transport and communications and public administration, the latter including substantial concentrations of national government employees at Bath, Cheltenham and Devonport as well as at Bristol.

69. A large part of the regional service sector caters for the needs of the local population, including those who have retired to the South West from elsewhere in the country. In proportion to population, however, the labour force in the service sector in the South West is rather larger than in the rest of the country (although a smaller proportion than in the South East). The most notable differences between the regional and the national pattern are that the South West employs appreciably larger proportions in hotels and catering and in motor repairing and garages—two groups associated with the tourist industry—and in construction, education, medical and dental services, and national government services. The size of the Region, its amenities, and the proliferation of small towns probably account for much of the relative importance of the service industries. The many small shopping centres and long lines of communication impose high demands for manpower, while the amenities of the Region not only give rise to employment in the tourist trades but facilitate recruitment to schools, hospitals and public administration. It is also, perhaps, in the character of the Region that private domestic service, though declining in numbers, still employs nearly twice the national average proportion. In some areas, the lack of alternative employment tends to make possible the employment of a high proportion of the labour force in service trades at relatively low rates of pay.

The manufacturing sector

70. With over 400,000 employees engaged in manufacturing in 1965, the Region clearly has considerable industrial importance, despite the fact that the manufacturing sector is relatively smaller than the average for Great Britain and for all other regions. As can be seen from Appendix 10, the South West as a whole has a reasonably well-balanced manufacturing structure, without marked dependence on any one industry. In the main, however, employment is concentrated in the light engineering and consumer goods industries, and there is a comparatively small representation of industries such as heavy engineering and chemicals. And, despite the historical importance of the West of England cloth industry, the textile industries are now much less important in the regional economy than they are nationally.

71. Engineering and electrical goods, vehicles, and food, drink and tobacco between them accounted for more than half the manufacturing employment in the South West in 1965. Table 8 shows how employment was divided

TABLE 8

Main manufacturing industries: employees in employment, June 1965*

Industrial Order	SOUTH WEST REGION Numbers employed '000	SOUTH WEST REGION Share of total employment %	GREAT BRITAIN Share of total employment %
Engineering and Electrical Goods, of which	104 3	7·9	9 8
Agricultural machinery	3 6	0·3	0 2
Industrial engines	4 6	0·3	0 2
Mechanical handling equipment	4 5	0·3	0 2
Miscellaneous engineering	18 9	1 4	1 0
Other mechanical engineering	30 3	2·3	3·7
Radio and other electronic apparatus	13·4	1·0	1 2
Other electrical engineering	16 8	1 1	2 8
Instruments, watches and clocks	8 9	0 7	0·7
Vehicles, of which	63 2	4 8	3·7
Aircraft manufacturing and repairing†	43 3	3·3	1·1
Motor vehicle manufacturing	11 5	0·9	2·1
Locomotives and railway track equipment	5·9	0·4	0·2
Food, Drink and Tobacco, of which	62 4	4·7	3 5
Bread and flour confectionery	9 7	0·7	0·7
Milk products	9 8	0·7	0 2
Tobacco	8 3	0·6	0 2
Cocoa, chocolate and sugar confectionery	6 2	0·5	0 4
Bacon curing, meat and fish products	7 3	0·6	0 3

*South West Region, excluding Poole.
†Includes aerospace

among the main components in these groupings and how their regional importance compared with their national importance. The South West was relatively strong in a number of the mechanical engineering industries, but it had less than the national proportions on the electrical side. The vehicles order was dominated regionally by the aircraft and aerospace industry. Among the food, drink and tobacco industries, milk products, tobacco, and bacon curing were significantly more important regionally than nationally.

72. Other manufacturing industries in the South West were much smaller. However, within the clothing and footwear group, the manufacture of footwear is particularly important; this industry employed a higher proportion of workers in the South West than anywhere else in the country except the East Midlands.

The extractive sector

73. About 54,000 employees were engaged in agriculture, forestry and fisheries in the Region in 1965, constituting a proportion of total employment which was nearly twice as high in the Region as nationally. The bulk of this number was in agriculture and horticulture; indeed, well over 10 per cent of all the people employed in agriculture or horticulture in Great Britain work in the South West.

74. However, employment statistics for agriculture and horticulture are particularly inadequate as a measure of the Region's manpower structure, because they exclude the self-employed farmers who are a substantial part of the Region's agricultural manpower force. They also exclude some part-time workers who may be insured in respect of other employment and therefore recorded in employment statistics for other industries, and some farmers' partners or relatives who, although occupied in agriculture, may be classed as non-employed for insurance purposes. The 1961 Census indicates that there were rather more than 50,000 self-employed farmers in the South West at that time and, taking employees and self-employed together, the total manpower force of the Region's agriculture and horticulture industry was probably well over 100,000 in 1965.

75. Mining and quarrying employed about 17,000 people in the Region in 1965. Coal-mining has diminished in importance. The industry employed about 2,400 workers in 1965 (including marketing and research staff) and this number has since been reduced with the further closure of pits. Other mining and quarrying activities are, however, significant, employing a much higher proportion of the labour force than in other regions and larger absolute numbers as well. This feature is largely due to the Region's exclusive resources in china clay and ball clay. It is also notable that the Region's resources of specialised types of stone give it a pre-eminent place in stone quarrying.

MALE AND FEMALE EMPLOYMENT

76. Women are a smaller proportion of total employees in the South West than the rest of Great Britain and the difference is most marked in the manufacturing sector. Of nearly 860,000 males in employment in the South West in 1965, 12·5 per cent worked in the construction industry, 10 per cent in distribution, 9 per cent in engineering and electrical goods and 5 per cent in agriculture and horticulture. Of about 470,000 females in employment, nearly 75 per cent were engaged in the service sector, notably professional and scientific services (which accounted for no less than 23 per cent of females who were at work in the Region), the distributive trades (20 per cent) and miscellaneous services, including hotels and catering (19 per cent).

77. That there were comparatively few women in the manufacturing sector was not merely because manufacturing industry was smaller in the Region; its labour force had a distinctly higher proportion of male employees than nationally. In the South West, 73 per cent of all employees in manufacturing were males and 27 per cent were females; the comparable percentages for Great Britain were 68 per cent and 32 per cent. This dependence on male employment is a feature of all the main industrial orders in manufacturing in the Region as well as of the manufacturing sector as a whole. In some cases, it is due to the character of the industries concerned: for example, in the textiles and clothing groups, the largely male-employing man-made fibres and footwear industries are more dominant in the industrial structure of the South West than in the national structure. In other cases, it may be that men have traditionally been given first call on available jobs; any further expansion in these industries may therefore provide additional employment opportunities for women. Industries where the proportion of female employment in the South West is not markedly different from the national proportion include engineering and electrical goods.

REGIONAL EMPLOYMENT TRENDS

78. To assess the growth in regional employment it is necessary to choose a period which began and ended at roughly corresponding points in the trade cycle. With certain reservations, the most recent period suitable for study

is 1960–64. An important factor which was peculiar to this period and therefore partially distorts the picture was the designation of Plymouth as a Development District between April 1960 and June 1961. This is of some significance in an analysis of trends within the Region.

79. The period 1960–64 is not entirely typical of employment growth throughout the last ten to fifteen years, however. Between 1952 and 1955 employment was growing at an average of 15,000 per annum, but there was very little change in the following three years. In the whole of the period 1952–58 the rate of employment growth in the Region was exactly the same as in Great Britain, though male employment grew more slowly than nationally and female employment more rapidly. The year 1958 marked a turning point and from then until 1964 regional employment, both for males and females, expanded much faster than in Great Britain, providing for an average of about 24,000 extra employees every year. Growth in employment since 1964 has slackened off somewhat by comparison with this explosive phase, although in manufacturing the increase in employment has continued at substantially above the national rate.

80. Figure 9 illustrates the dynamic changes which were taking place between 1960 and 1964. During these four years, employment in the Region increased by 89,400 or 7 per cent, compared with 4 per cent in Great Britain. The regional rate of increase was about twice the national rate for both males and females: the number of male employees rose by 45,500 or 6 per cent (compared with a $2\frac{1}{2}$ per cent increase nationally), and female employees increased by 43,900 or 11 per cent (compared with 6 per cent nationally).

81. Appendix 12 shows employment changes between 1960 and 1964 by main industrial orders. The most rapid expansion was in the service industries and construction, where employment increased by 11 per cent compared with a national increase of 9 per cent. The rate of growth in manufacturing was rather slower, and employment in this sector accounted for a rather smaller proportion of total regional employment at the end of the period than at the beginning. Nevertheless, manufacturing employment increased by $4\frac{1}{2}$ per cent in the Region, whereas nationally it rose hardly at all. Most of the expansion in both services and manufacturing was met by the growth of the regional population, but some was met by the movement of workers from agriculture and coalmining.

82. The rate of increase was high in nearly all the industrial orders within the service sector and, throughout nearly the whole range of service industries, the regional rate of increase was appreciably above the national rate. It was particularly so in the cases of insurance, banking and finance; medical and dental services, catering and hotels, etc.; and national government service. In some other cases where the regional rate of increase was close to the national rate, the numerical increases were substantial: for example, construction, retail distribution, and educational services.

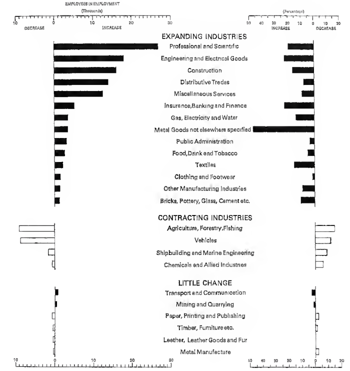
83. In the manufacturing sector, increase in employment was at a markedly high rate in the engineering and electrical goods group of industries, which expanded by 23 per cent, nearly three times the national rate. Some of the food industries also grew particularly fast, as did footwear and rubber.

84. There were few industries where employment decreased between 1960 and 1964, but these were the more conspicuous for being against the general regional trend. The chief ones were agriculture, which lost over 9,000 people; railway operating and manufacturing, which lost about 11,000; and private domestic service, which lost 6,500. The release of labour from the modernising agricultural and rail transport industries was rather below the national rate, but railway workshops were affected more drastically. The increase in opportunities for alternative employment undoubtedly attracted many employees away from private domestic service.

EMPLOYMENT IN THE SUB-REGIONS

85. Appendix 13 shows the sub-regional and sub-divisional distribution of employment in 1965 by main economic sectors (see also Figure 10) and Appendix 14 presents the figures in terms of shares of total regional employment compared with shares of regional population and land area. The Northern sub-region is dominant in the employment structure of the South West, as in the demographic structure. It had 51 per cent of all employment in the Region in 1965, compared with its 47 per cent share of the regional population. At the other extreme, only 10 per cent of all employees in the Region worked in the Western sub-region, which contains 13 per cent of the regional population. In employment, as in geography, the Central and Southern sub-regions are between these two, each providing around 20 per cent of total regional employment, slightly less than their shares of population. The variations in the sub-regional shares of population compared with employment are due to the greater number of retired people in the south and west of the Region, to the greater proportion of self-employed in Devon and Cornwall and to differences in activity rates.

86. An examination of sub-regional and sub-divisional employment in 1965 within the major sectors shows even greater contrasts.



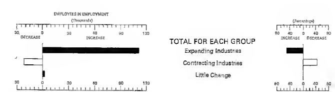


Fig. 9 Changes in the Number of Employees in Employment, 1960-64.
The lengths of the left-hand columns represent the changes in numbers employed and the right-hand columns indicate percentage change between 1960-64.

Fig. 10 Employment Structure by Sub-Divisions: mid-1965.
The area of each circle represents the total number of employees in employment; the sectors show the distribution between the four major industrial categories.

Services and construction

87. Employment in services and construction was broadly proportionate to the size of the population in the area served. The relatively high share of regional employment in these industries in the Bristol-Severnside sub-division is mainly due to Bristol's role as the headquarters of regional organisations, both public and private. In the Exeter-Torbay sub-division, it largely reflects the importance of retirement and tourism in the economy of the sub-division. In West Cornwall it is similarly related to tourism. Only in the Bodmin-Exmoor sub-division, with 7 per cent of the regional population in 1965 and only 5 per cent of regional employment in the service sector, was there a markedly low share of services employment.

Manufacturing sector

88. In the manufacturing sector, 64 per cent of total regional employment in manufacturing was in the Northern sub-region, and only here was the proportion of employees in manufacturing (38 per cent) equal to the national average. Within this sub-region, the North Wiltshire sub-division had a rather higher proportion of manufacturing employment (45 per cent) than the national average; the proportions in North Gloucestershire (39 per cent) and Bristol-Severnside (36 per cent) were close to it. The Western sub-region had only 5 per cent of regional employment in manufacturing, the bulk of it in the West Cornwall sub-division: the proportion of manufacturing to total employment (13 per cent) was well below the national and regional proportions. The rest of the manufacturing employment in the Region was divided almost equally between the Central and Southern sub-regions. In the Plymouth and Wellington-Westbury sub-divisions, manufacturing employment accounted for 28 per cent and 34 per cent respectively of total employment. The proportion of manufacturing employment to total employment was much smaller in the Exeter-Torbay sub-division (18 per cent). A similarly low figure for the South East sub-division (21 per cent) is exclusive of Poole.

Extractive sector

89. Employment in the extractive sector was spread fairly evenly throughout the Region in 1965, roughly in proportion to the size of each sub-region. This is as might be expected in a Region where agriculture forms a substantial part of the extractive sector, even though the figures make no allowance for self-employed farmers. But the significance of the extractive industries in the economy of the different sub-regions varied radically. The Western sub-region is appreciably dependent on the extractive industries, which provided 14 per cent of its employment in 1965, primarily because of the substantial numbers engaged in china clay mining. At the other extreme,

employment in the extractive industries in the Northern sub-region represented only 3 per cent of total employment. The Central sub-region had a higher than the regional average proportion of workers in the extractive industries because of its agriculture; the proportion in the Southern sub-region was around the regional and national averages.

90. Paragraphs 76–77 drew attention to the low proportion of female employment in the South West and to its marked concentration in the service sector. Table 9 shows that this feature is common throughout the Region. The ratio of female employment to total employment is below the national average in all sub-regions except Southern, where seasonal employment in the holiday industry is the main reason for the closeness to the national figure. In the manufacturing sector, the proportion of female employment is relatively low in all industrial orders, and this is the case in all the sub-regions, including Northern, with only isolated exceptions.

TABLE 9

Proportion of females to total employees in employment, 1965*

Per cent

Area	All industries	Manufacturing
GREAT BRITAIN	**36·4**	**31·8**
SOUTH WEST	**35·3**	**27·3**
Northern	35·0	26·5
Central	35·0	30·5
Southern	36·6	27·8
Western	34·4	25·8

*South West Region, excluding Poole

RECENT EMPLOYMENT TRENDS IN THE SUB-REGIONS

91. It has been noted that between 1960 and 1964 employment in the Region as a whole increased by about 90,000 or 7 per cent, compared with a 4 per cent increase in Great Britain. Appendices 15 and 16 apportion this growth between the sub-regions and sub-divisions (see also Figure 11). All the sub-regions shared the rapid expansion of these four years, with increases in employment ranging from 8 per cent in the Southern sub-region to 6 per cent in the Central sub-region. In each sub-region, as in the Region as a whole, the service and construction industries accounted for much the greater part of the employment growth.

Northern sub-region

92. In the Northern sub-region, total employment grew by 7 per cent, the regional average, between 1960 and 1964, although the rise in female employment was slightly slower than elsewhere. The most rapid increase was in the Bristol-Severnside sub-division where total employment increased by 9 per cent: the rates of increase in the manufacturing and service sectors were close to the regional average, but employment in the extractive industries fell less rapidly than in the Region as a whole. In the North Gloucestershire and North Wiltshire sub-divisions, both total employment and employment in the manufacturing sector grew more slowly than in the Region as a whole. Total employment growth in Swindon was above the regional average, as might be expected of a London overspill town, but manufacturing employment growth was relatively low, since the run-down in the railway workshops largely offset expansion in other manufacturing activities.

Central sub-region

93. Allowing for the exclusion of Poole from the employment statistics, the Central sub-region's growth in total employment in 1960–64 was near the regional average. However, there is no clear sub-regional trend, and differences between the sub-divisions are rather sharper than elsewhere. Manufacturing employment has been falling in the Wellington-Westbury sub-division, with decreases in employment in clothing and footwear offsetting growth in other industries. The growth in employment in service industries and construction in the sub-division was among the fastest in the Region. In the South East sub-division, manufacturing employment, particularly in engineering and aircraft, has been growing more rapidly than regionally, although the number of extra jobs has not matched the losses from agriculture. In both sub-divisions, female employment has grown at a rather faster rate than male employment.

Southern sub-region

94. Total employment in the Southern sub-region grew by 8 per cent between 1960–64; the increase in manufacturing employment was well above the regional rate, while the growth in services employment was rather below that in the Region as a whole. In the Exeter-Torbay sub-division, growth in manufacturing employment has in general been limited to a few firms; in both manufacturing and services, the increase in male employment has been larger than the increase in female employment. In the Plymouth Area sub-division, which is dominated by the Devonport Dockyard and other naval establishments, employment in manufacturing grew rapidly between 1960 and 1962, as already recorded. The growth was met chiefly by females, and male employment in this sub-division in 1965 was below the 1962 level.

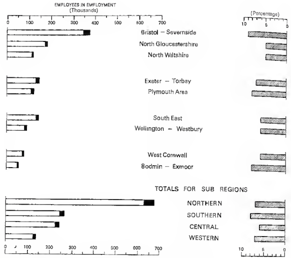


Fig. 11 Employment Growth 1960-64, by Sub-Regions and Sub-Divisions.
The lengths of the left-hand columns represent the number of employees in employment in 1964 and the solid portions of the columns indicate the growth in employment between 1960 and 1964. The right-hand columns indicate percentage change between 1960-64.

Western sub-region

95. In the Western sub-region, the 7 per cent growth in total employment in 1960–64 was at the regional average, although the 2 per cent growth in manufacturing employment was lower than in any other sub-region. The sub-region, West Cornwall especially, is particularly dependent on the extractive industries. The decline in agricultural employment in the West Cornwall sub-division was compensated by increased employment in mining and quarrying. In the Bodmin-Exmoor sub-division, the increase in manufacturing employment was only about half the decrease in agricultural employment.

UNEMPLOYMENT AND UNUSED MANPOWER

Seasonal fluctuations in employment

96. Employment statistics reflect the maximum level of employment during a year. The South West, however, suffers from pronounced seasonal variations, so that in certain areas—and in certain activities particularly—the level of employment for most of the year is markedly below that of the peak summer months. Unemployment rises steeply at the end of every holiday season: the average rise between June and December over the period 1958–66 was about 9,000. Unfilled vacancies fall off equally dramatically between summer and winter, by about 7,000 in an average year. The extent of the drop in the number of people at work is less easy to measure, however. A new series of statistics introduced in 1965 showed that the South West was the only region which had less employment in December that year than it had in June; they indicated a decrease of about 15,000 employees. But the seasonal swing was almost certainly greater since part of it was masked by continuing growth in employment in non-seasonal activities. The main industries where there is a seasonal swing are hotels and catering, road passenger transport, distribution, food processing, agriculture and construction.

97. Such pointers as are available support the common assumption that the swing is of most significance in the Southern and Western sub-regions. Hotels and catering, the principal industry requiring a large proportion of its workers for part of the year only, accounts for 11 per cent of total summer employment in the

Bodmin-Exmoor sub-division, 9 per cent in West Cornwall and 8 per cent in Exeter-Torbay, compared with only 2½ per cent in the rest of the Region. The out-of-season decrease in numbers of unfilled vacancies is normally most marked in the Western sub-region, mostly in the service sector, and with females affected more than males; the Southern sub-region is usually affected only slightly less. Similarly, seasonal variations in unemployment during 1954–64 were regularly greatest in the Western sub-region, followed in order by the Southern, Central and Northern sub-regions. The demand for seasonal labour in Cornwall is spread over a relatively long period and, with minor exceptions, the peak demands do not coincide with the holiday season.

98. It seems likely that, in the Western sub-region, at least 5 per cent, and probably much more, of the total employment in the middle of the year disappears during the winter. The off-season rise in unemployment is a visible sign of most of this; but in addition many married women do not actively seek other work after the summer season is over and many immigrant seasonal workers return to their homes in other regions or abroad. The impact of seasonal influences on the Southern sub-region is a little less severe, but is still significant in the Exeter-Torbay sub-division. Having regard to the short duration of peak employment in the tourist areas there must clearly be a substantial amount of under-employment of manpower resources for much of the year. Evidence is lacking, however, as to the extent to which the seasonal workers themselves would be available for regular full-time employment, if it existed.

Unemployment and the pressure of demand for labour

99. Figures of registered unemployed and of notified unfilled vacancies, while not giving a direct measure of the extent of unused labour resources or of labour shortages, nevertheless provide an indication of the *relative* pressure of labour demand in different parts of the country. The figures since 1954 show that the pressure has been relatively light in the South West compared with the Midlands and parts of the South East. Except for the three-year period, end-1961 to end-1964, seasonally adjusted unemployment rates in the Region have been higher than in the country as a whole since 1954, despite the above-average rate of employment growth during much of this period (see Figures 12 and 13). The Region's relative position has deteriorated since 1964. Even in summer, male unemployment rates are now higher than in the country as a whole, while female rates are no lower than nationally despite the demands of the tourist industries.

100. The relatively low pressure of demand for labour throughout the year and the considerable swings between summer and winter are most marked in the south and west of the Region, with the highest unemployment levels in the Western and Southern sub-regions. The relationships between unemployment and vacancy statistics show that the pressure of demand for labour in these two sub-regions during the summer peak is frequently below the national level for mid-winter, while for most of the year unemployment rates in the 5–10 per cent range are common in the tourist areas (see Figure 14). In the Northern and Central sub-regions, by contrast, unemployment rates have usually been about the national average.

101. Occupationally, unskilled and office workers predominate on the unemployment register both in summer and winter, broadly throughout the Region. The most conspicuous difference in the composition of the register in the South West compared with Great Britain is the higher proportion of males aged 55 and over (50 per cent of the male register in the Region in July 1966, compared with 34 per cent nationally): this has accounted largely for the higher rates of male unemployment in the South West (see Table 10) and for the relative increase in male unemployment in the Region since 1954. The proportion of older persons among the unemployed is particularly high in the Southern sub-region where, in July 1966, 45 per cent of the unemployed males were aged 60 or over, compared with 24 per cent in Great Britain. Personal handicaps would hinder some of these older persons in obtaining employment even under the most favourable conditions but many are on the unemployment register only because of the lack of suitable jobs locally, for example clerical workers who accounted for 20 per cent of the unemployed males compared with 11 per cent nationally in December 1965. A survey of the characteristics of the unemployed undertaken in 1964 concluded that, in the South West, a rather higher proportion were likely to be readily acceptable to employers than in any other region except Scotland. Comparison of the summer and winter figures in Table 10 suggests that much of the seasonal employment, particularly in the Southern and Western sub-regions, is taken up by younger people, who might be expected to be suitable for all-the-year-round employment. Comparative earnings in competing occupations are relevant, but if more employment were available in other industries many of the seasonal jobs could probably be offered to older workers who are now unemployed throughout the year.

Activity rates*

102. Previous paragraphs have dealt with that

*Activity rate: the number of employees in an area expressed as a percentage of the home population (civilian population and HM Forces) aged 15 or over in that area. Activity rates can be calculated separately for sexes and (on a national and regional basis only) for age groups.

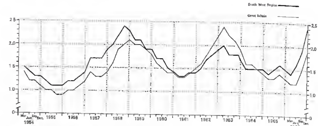


Fig. 12 Seasonally Adjusted Totals of Wholly Unemployed: 1954-66.
Excluding school-leavers and expressed as a percentage of total employees, South West Region and Gt. Britain.

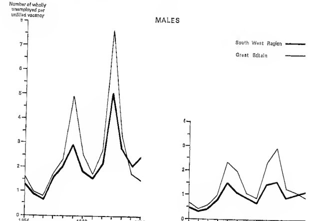


Fig. 13 Pressure of Demand for Labour in the South West and Gt. Britain: 1954-66.
As illustrated by the ratio of wholly unemployed to notified unfilled vacancies.

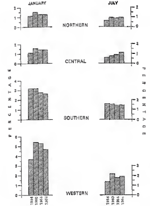


Fig. 14 Total Unemployment (unadjusted) for each of the Sub-Regions in January and July of Selected Years.
Expressed as a percentage of total employees in the sub-region.

part of the Region's population which is already in employment or is seeking it through the employment exchanges. In addition, there are in the South West a particularly large number of people—chiefly women—who are outside the labour force at present: although not registered as unemployed, many of them might be willing to work if jobs of a suitable type with the right pay were available in their areas.

103. One estimate of the number of these women could be made by assuming that the proportion of the female population aged 15 or over in employment in the Region (32·0 per cent in 1964) could be raised to the national level (39·2 per cent); but this is not realistic because of two special factors in the South West. First, the regional population includes more of the older and less active age groups (particularly in the south and west); secondly, the relatively scattered settlement pattern limits the number of locations where there are enough available workers (especially married women) to make the establishment of manufacturing or commercial enterprises worthwhile.

104. After adjusting for the age factor, the reserve of female labour in the Region may be of the order of 60,000 women under the age of 60, scattered throughout the Region but relatively most concentrated in the Southern and Western sub-regions. Most of them probably live in rural districts where improved and adequate transport services would be necessary to bring into employment those who might be available; indeed many may not be available because they are wives or daughters of self-employed farmers, assisting on the family farm. However, there appear to be considerable pockets of unused female labour in and around some towns, such as Plymouth. The size of the reserve of male labour is harder to quantify since much of it consists of men under the age of 65 who have moved into the Region, particularly the Southern sub-region, on early retirement, but who might be willing to augment their pensions if suitable local jobs were available. The fast growth of employment in recent years has had some effect in bringing the inactive into employment and, since 1960, the regional activity rate has risen slightly faster than the national rate, despite the unfavourable changes in the age structure of the population. Nevertheless, the contribution to regional employment growth of increased activity rates was much less than that of the increase in the working age population resulting from immigration, except in the Western sub-region where both male and female activity rates increased.

TABLE 10
Male unemployment rates, 1966*

Age groups	Unemployment rate percentages			
	January		July	
	SOUTH WEST	GREAT BRITAIN	SOUTH WEST	GREAT BRITAIN
All ages	2·2	1·6	1·5	1·4
Under 40	1·6	1·6	0·9	1·2
40–54	1·5	1·4	1·0	1·1
55 and over	4·5	2·7	3·6	2·3

*South West Region, excluding Poole

4 Agriculture, Forestry and Fisheries

PART III
THE REGION'S ECONOMY

AGRICULTURE

The land

105. The location of the Region in the relatively warm south west of Great Britain gives it physical advantages for the growth of many crops, particularly grass. In the coastal districts, tha high wintar tempereturas, relatively high rainfall and above-avarage sunshine favour the growth of grass over a much longer period than in Midland or Northern England. Away from the sea, and particularly along the eastarn margins of tha Ragion, the climate is less equable, rainfall at comparabla altitudes is lower and irrigation is beneficial for a wide renge of crops; the growing season is appraciably shorter—nine months or lass. These conditions favour cereal production on the wall-drained soils of tha Chalk and the Cotswolds.

106. The Ragion has a wide variety of geological formations and soils and these are raflectad in variations in land quality. Some of the best land in the Region is found in parts of lowland Somerset, Devon and Gloucestershire. Tha poorest land is confined to relatively smell areas such as tha hill land of Dartmoor and Bodmin Moor or the heathlands of East Dorset. Much the greetest part of the land in the Ragion is of averaga quality, although some of this is of greater valua economically than tha description would suggest, since the farms ara larga and tha soil suitable for profitable intensive cereal growing.

107. The inherent quality of the land has an important bearing on the afficiency end type of agricultural production. Despite modern technology, thare ere still areas whera serious physical limitations, such as poor drainaga, result in low production levels and low farm incomes, for example in parts of North Devon on the geological formation known as the 'culm measures'.

Types of farming

108. Farming occupies five million of the six million acres in the South West or about onasixth of the agricultural land in England and Wales. Df these five million acres, three million are under grass with another half-million acras rough grazings (sae Table 11).* While there has been a slight decline in tha proportion of grassland in the Ragion in the last decade, the intensity of stocking has increased significantly, from 365 livestock units per 1,000 acres of grazing in 1956 to 422 units in 1964, compared with an increase in England and Wales from 375 to 404 livestock units (see Table 12).

109. Although grass is the dominant crop over tha Region as a whole, there is a significant tillage acreage in some districts. The proportion of tillage varies from one acre in ten in parts of Somerset to one acre in two in parts of Gloucestarshira and Wiltshire. In this Region, the tillage acreage has incraased by almost 200,000 acres (about 20 per cent) in the last decade. Thera has been a large expansion in the barley acreage from 240,000 to over 700,000 acres, about one-seventh of the United Kingdom acreage. Tha acreage of oats, dredge corn and arable stock feed crops has decraased.

110. Dairying is the dominant type of farming in tha South West and in all counties in the Region. The proportion of dairy farms to other types of farm is shown in Table 13, and Figure 15 shows the areas of greatest concentration. Whila in the South West, as nationally, numbers of milk producars hava declined in recent years, milk output in the Region has risan with increases in numbers of cows and yields per cow. As Tabla 14 shows, trends within the Region have varied. The largest increeses in numbers of cows in the last decade have been in Cornwall and Davon; in Wiltshire the

*All regional data in this chapter are by reference to administrative counties; data by sub-regions are not available.

number of cows in 1964 was little higher than in 1956. Milk production in the Region is now over 500 million gallons annually. It is by far the largest item of agricultural output in the Region, and represents 25 per cent of total milk sales in England and Wales.

111. The uplands of the Region—Dartmoor, Exmoor and Bodmin—and to some extent the lowland areas of Devon and Cornwall, support the rearing of sheep and store cattle. Cattle are fattened for beef mainly in the coastal districts of Devon and Cornwall, in the Severn Valley, and on the Somerset Lowlands. The proportion of farms dependent on livestock to a major extent is greatest in Devon and Cornwall.

112. As elsewhere in the country, pigs and poultry are increasingly managed on large-scale intensive lines, though considerable numbers of pigs are still kept on small farms in West Cornwall under non-intensive systems. Mixed farms are traditional in Devon and Cornwall and still constitute about a quarter of the total farms

Horticulture

113. Horticultural crops, especially glasshouse and flower crops, are of high value in monetary terms although they occupy only a small acreage. In the United Kingdom, horticultural production occupies only 2 per cent of the land under cultivation and accounts for about 10 per cent of the value of 'farm gate' sales. In the South West, about 1 per cent of the land is devoted to horticulture and the value of output is probably of the order of 5 per cent of 'farm gate' sales.

114. Soil and climate have influenced the location of the horticultural concentrations in the Region, which are mainly in Gloucestershire, Somerset, Devon and Cornwall and on

TABLE 11

Agricultural land use, 1964

Thousand acres

	Tillage (agricultural and horticultural crops and fallow)	Grassland (including lucerne)	Total (tillage and grassland)	Rough Grazings		Total
				Sole rights	Commons (estimated)	
UNITED KINGDOM	**11,498**	**19,191**	**30,887**	**15,137**	**2,790**	**48,814**
ENGLAND AND WALES	**9,607**	**14,771**	**24,378**	**3,351**	**1,505**	**29,234**
SOUTH WEST	**1,129**	**3,130**	**4,259**	**380**	**210**	**4,850**
Cornwall	164	465	629	71	22	722
Devon	258	901	1,159	146	156	1,461
Dorset	126	324	450	37	2	490
Gloucestershire	193	402	595	17	8	620
Somerset	145	651	796	48	21	865
Wiltshire	243	387	630	61	1	692

TABLE 12

Changes in the proportion and utilisation of grass, 1956-64

*	1956		1964	
	SOUTH WEST	ENGLAND AND WALES	SOUTH WEST	ENGLAND AND WALES
Acres of grazing per 1,000 total acres	790	874	760	660
Grazing livestock units per 1,000 total acres	288	253	321	268
Dairy cows per 1,000 total acres	123	87	144	94
Grazing livestock units per 1,000 acres of grazing	365	375	422	404

*Acres of grazing include temporary and permanent grassland, rough grazings and lucerne. Total acres include crops, grass and rough grazings. A livestock unit is a dairy cow or its equivalent in other types of livestock, based on feed requirements.

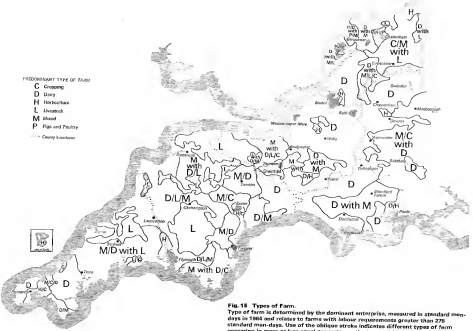


Fig. 15 Types of Farm.
Type of farm is determined by the dominent enterprise, measured in standard man-days in 1964 and relates to farms with labour requirements greater than 275 standard man-days. Use of the oblique stroke indicates different types of farm occurring in more or less equal proportions: the term 'with' precedes types of farm which occur in minor proportions.

TABLE 13

Types of farm classification, June 1964*

	Percentage of 'full-time' farms						
	Dairy farms	Livestock farms	Pig/poultry farms	Cropping farms	Horticultural holdings	Mixed farms	Total number of full-time farms
ENGLAND AND WALES	**39·7**	**14·8**	**6·6**	**15·9**	**9·9**	**13·2**	**157,391**
SOUTH WEST	**55·0**	**12·8**	**4·9**	**3·0**	**5·9**	**18·4**	**29,089**
Cornwall	48·8	14·9	3·3	2·8	7·6	23·1	5,640
Devon	43·7	19·2	4·3	1·3	4·3	27·2	8,975
Dorset	75·9	4·1	8·8	2·8	3·7	6·7	2,489
Gloucestershire	48·0	11·1	8·2	7·4	11·0	18·3	3,280
Somerset	68·1	8·7	4·5	1·8	6·1	10·8	5,880
Wiltshire	88·5	5·9	7·2	6·8	3·7	9·9	2,825

*This analysis is based on standard man-days (see paragraph 118 and footnote). The farms are full-time in the sense that they have a labour requirement of 275 standard man-days or more

TABLE 14

Numbers of dairy cows and heifers in milk and cows in calf, 1956-64

	1956 No.	1960 No.	1964 No.	1956–64 % increase
ENGLAND AND WALES	**2,451,083**	**2,594,809**	**2,805,187**	**8**
SOUTH WEST	**578,620**	**658,944**	**669,576**	**16**
Cornwall	80,156	93,352	96,249	20
Devon	117,511	141,381	154,451	31
Dorset	78,240	88,773	89,620	15
Gloucestershire	64,349	70,124	69,396	8
Somerset	143,810	166,272	167,147	16
Wiltshire	92,554	99,042	92,713	–

the Isles of Scilly. In Gloucestershire, growers enjoy the advantages of proximity to large urban populations and ready access to good communications to the Midlands, the North and London. Growers in Devon and Cornwall and the Scillies benefit from a favourable climate for overwintered and early crops, such as flowers, broccoli, spring cabbage and early potatoes, but have the disadvantage of remoteness from their markets. This is particularly so for growers in the Isles of Scilly whose produce, mainly flowers, has to be brought by sea or air for land transport to the market. Adequate road and rail links with large population centres are necessary if the early perishable crops of the far south-west—vegetables, flowers and soft fruit—are to be marketed in good condition to compete with imported produce. Some growers have joined together in co-operative marketing and there appears to be further scope for this. In the tourist season, growers in Devon and Cornwall particularly benefit from local sales of their produce to hotels and other caterers.

Structure of farming

115. There are some 57,000 holdings in the Region, about 22,000 of which are smaller than 20 acres. Even on high quality land, it is almost impossible to make a satisfactory living from farming such an acreage without forms of production which do not depend on the land to any extent, such as intensive pig or poultry enterprises. The proportion of land on the Region's smaller holdings is about the same as in England and Wales as a whole but there are variations within the Region (see Table 15). Thus, compared with England and Wales, Cornwall has almost twice the proportion of land on holdings of less than 50 acres. Devon has three-quarters of its land on holdings of 50–300 acres compared with national and regional averages of about 60 per cent, while

TABLE 15

Distribution of crops and grass acreage between holdings of different sizes, 1964

	Percentage of acreage* on holdings			Total acreage of crops and grass
	of less than 50 acres	of 50–300 acres	of more than 300 acres	
UNITED KINGDOM	**13·5**	**56·6**	**29·5**	**30,686,463**
ENGLAND AND WALES	**11·5**	**57·0**	**31·5**	**24,378,343**
SOUTH WEST	**11·6**	**63·0**	**25·4**	**4,259,805**
Cornwall	19·8	71·1	9·1	829,208
Devon	12·0	77·5	10·5	1,158,648
Dorset	7·6	48·7	43·7	450,595
Gloucestershire	9·0	54·0	37·0	595,060
Somerset	12·4	69·6	18·0	796,022
Wiltshire	5·6	40·0	54·4	630,273

*Crops and grass.

TABLE 16

Holdings of different sizes, 1964
Measured in terms of crops and grass acreage

	Percentage of number of holdings			Total number of holdings
	of less than 50 acres	of 50–300 acres	of more than 300 acres	
UNITED KINGDOM	**63·3**	**32·6**	**4·1**	**445,132**
ENGLAND AND WALES	**60·0**	**35·4**	**4·6**	**323,067**
SOUTH WEST	**56·7**	**39·6**	**3·7**	**57,107**
Cornwall	65·0	33·8	1·2	12,288
Devon	50·6	47·6	1·8	16,135
Dorset	53·7	38·3	8·0	4,571
Gloucestershire	60·2	34·0	5·8	7,269
Somerset	57·3	39·7	3·0	11,674
Wiltshire	52·0	37·0	11·0	5,170

over half the land in Wiltshire is on holdings of over 300 acres—almost twice the proportion in England and Wales. Table 16 shows that, proportionately, there are more small farms in Cornwall (particularly in the extreme west) and in Gloucestershire (mainly in the Forest of Dean) than elsewhere in the Region.

116. Changes in the total acreage of land on holdings of different sizes are shown in Figure 16. In the last fifteen years or so, there has been a significant increase in the number of farms of over 300 acres. A quarter of a million acres of land farmed previously as smaller units is now farmed on holdings of over 300 acres. Half this change has taken place in the last five years. Holdings under 20 acres declined by about 2,000 between 1949 and 1960 but the rate of amalgamation is probably a little slower in the South West than elsewhere. It remains to be seen whether acceleration will result from the incentives towards voluntary amalgamation which are provided in the Agriculture Act 1967.

Size of business

117. It is important to distinguish between the acreage of a holding and the size of the farm business associated with it. The intensive production of pigs and poultry on a large scale needs only a small acreage; a big hill farm on poor land may support only a small farm business. Acreage may, however, impose permanent limitations on the size of the business, especially with a small farm on poor land or

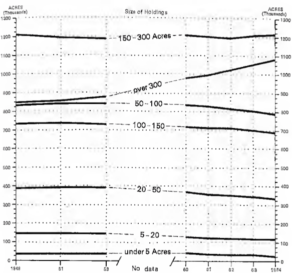


Fig. 16 Total Acreage of Crops and Grass on Holdings of Different Sizes.
Measured in terms of crops and grass acreage.

where the farmer lacks resources, whether of money or skill, to supplement his inadequate acreage by intensifying his system of production.

118. A recent publication—*The Structure of Agriculture* (HMSO 1966)—gives details of the number of holdings associated with businesses of different sizes in the United Kingdom. 'Large holdings' are defined as having a labour requirement of 1,200 standard man-days (SMD) or more*; 'medium-size holdings'—600 to 1,199 standard man-days; 'small holdings'—275 to 599 standard man-days; and 'very small holdings' less than 275 standard man-days. Table 17 shows the numbers and percentages of such holdings in the United Kingdom, England and Wales and the South West Region.

119. The size distribution of farm businesses in the Region is similar to that in the United Kingdom as a whole although the proportion of medium-size farm businesses is somewhat larger in the South West. There are about 11,000 medium-size farm businesses in the Region, about one-sixth of the total in the United Kingdom. The Council estimate that these produce between 30 per cent and 40 per cent of the value of the farm output of the Region. The very small farms which afford less than full-time employment for one man tend to be associated with the areas on outskirts of towns and with long-established mining and quarrying areas such as Camborne-Redruth, St. Austell and the Forest of Dean; they are also numerous in East Dorset. At the other end of the scale, much of the Wiltshire and Dorset chalklands and the Cotswolds have much higher proportions of large holdings than the regional or national averages.

Land tenure

120. Regionally and nationally, the number of holdings in owner-occupation increased considerably between 1950 and 1960: in the South West, the number of wholly owned holdings increased by 13 per cent and the land on such holdings by 11 per cent (see Tables 18

*In recent work in the Ministry of Agriculture, Fisheries and Food, standard man-days have been adopted as a convenient system of measuring the size of business. This involves the calculation of standard labour requirements for different enterprises expressed in standard man-days, which represent eight hours of adult male labour. The total standard man-days for all enterprises are then added and allowance made for maintenance and other tasks. the total then represents the size of a farm business.

TABLE 17

Holdings of different sizes, 1965
Measured in terms of labour requirements

	Large holdings 1,200 SMD and over	Medium size holdings 800–1,199 SMD	Small holdings 275–599 SMD	Very small holdings less than 275 SMD	Total* holdings
	'000				
United Kingdom	42	67	96	201	406
England and Wales	34	54	68	150	306
South West	5	11	13	26	55
	Percentage				
United Kingdom	10	15	25	50	100
England and Wales	11	18	22	49	100
South West	9	20	24	47	100

*Excludes statistically insignificant holdings—about 2,700 in the South West Region.

TABLE 18

Land tenure, 1950 and 1960-61

	Percentage of holdings					
	Wholly owned		Wholly rented		Part-owned Part-rented	
	1950	1960–61	1950	1960–61	1950	1960–61
ENGLAND AND WALES	**36**	**47**	**49**	**37**	**15**	**16**
SOUTH WEST	**38**	**51**	**45**	**32**	**17**	**17**
Cornwall	36	48	52	41	12	13
Devon	42	59	44	27	14	14
Dorset	36	48	48	37	16	15
Gloucestershire	42	53	40	29	18	18
Somerset	35	45	38	29	27	26
Wiltshire	35	47	46	35	19	18

TABLE 19

Land tenure, 1950 and 1960-61

Per cent

	Acreage on holdings					
	Wholly owned		Wholly rented		Part-owned Part-rented	
	1950	1960–61	1950	1960–61	1950	1960–61
ENGLAND AND WALES	**27**	**37**	**54**	**41**	**19**	**22**
SOUTH WEST	**29**	**40**	**50**	**37**	**21**	**23**
Cornwall	31	40	56	44	13	16
Devon	35	46	49	33	16	19
Dorset	25	34	56	46	19	20
Gloucestershire	29	41	49	35	22	24
Somerset	22	32	45	33	33	35
Wiltshire	26	36	48	41	28	23

and 19). Devon had the greatest proportionate increase in both land and holdings wholly owned: by comparison, Cornwall had a relatively low rate of increase—lower than the average for England and Wales in respect of both the acreage of land and number of holdings. By 1960, just over half the holdings in the South West were owner-occupied. Devon had the highest percentage of owner-occupied holdings, while Somerset still had a lower proportion than any other county in the Region. In Somerset, there is a high percentage of part-owned, part-rented holdings because of the practice, in certain districts, of letting grazing annually to the owner-occupiers of neighbouring farms.

121. No regional figures more recent than 1960–61 are available on land tenure except for the information about Devon in a recent survey by the University of Exeter.* However, there is no reason to suppose that the trend towards owner-occupation has been interrupted, although the rate of change is slow. When a farm is bought at the present time, the purchaser usually intends it to be farmed either by himself or his son. The return on capital is too low to make land ownership for letting an attractive investment, particularly at today's vacant possession prices.

122. One of the advantages of the landlord/tenant system is that the landlord provides the capital for the purchase of the farm, leaving the tenant to finance the running of it. The owner-occupier has to provide capital both for purchasing and working the farm. The present trend towards a smaller labour force makes it even more important that there should be enough capital to buy machinery and improve buildings, for which the owner-occupier who has spent most of his capital in buying his farm may have difficulty in finding money.

Agricultural manpower

123. Agriculture and horticulture in the Region afford employment to well over 100,000 people, taking self-employed farmers and growers and their workers together. The 1961 Census showed some 56,000 farmers, farm managers and market gardeners in the South West. At present, about half the farms in the Region employ no workers, the farmer providing both the managerial skill and the manual labour. The self-employed are a particularly high proportion of the agricultural labour force in Devon and Cornwall, reflecting the great number of relatively small family farms in these counties.

124. One of agriculture's contributions to the national economy is the release of manpower. In the South West, as in other parts of the country, there is a steady decline in the number of farm workers, which in recent years has been between 4 per cent and 5 per cent annually. The substitution of machinery for manpower on both grass and arable land has made possible substantial economies of labour in many field operations. The same degree of economy in the use of manpower has not yet been achieved in systems of livestock farming, although the adoption of better working methods and improved layout of farm buildings has permitted some saving of labour in operations concerned with housed livestock, particularly in dairying and pig-keeping. Such changes impose further demands on farmers' capital. It is particularly difficult to achieve enough savings in man-hours to dispense with a worker in the case of farm businesses employing only one man apart from the farmer. Probably 20 per cent–25 per cent of the farms in the Region are in this category. If the migration of labour out of farming continues, these farmers may be faced with the difficulty of either contracting their farm business or making a major—and possibly costly—reorganisation.

125. Another problem connected with manpower is the occurrence of seasonal peaks of work in most types of farming. These may be met by overtime, by changes of farming system to smooth out the demand for labour over the farming year, or by further mechanisation. In horticulture, where the ability to plan and harvest a crop to time is vital, there is not yet the same opportunity to substitute machinery for hand labour and a supply of seasonal casual labour is essential.

Labour productivity

126. In the decade 1954–64, the volume of agricultural output in the United Kingdom rose by rather more than one-third, and labour productivity increased by 5 per cent—6 per cent a year. Although there are no regional calculations of productivity, the information available to the Council suggests that the Region's productivity has increased rather less rapidly than the national rate.

127. Increased productivity can be achieved partly by the investment of capital and partly by the adoption of improved techniques and materials now available in most sections of the industry and its ancillaries. For example, in dairying with the larger herds it is now not uncommon for a man to milk up to 80 cows or even more, whereas ten years ago it would have been considered very efficient for a man to milk 40 cows. Both nationally and regionally it is difficult to achieve such standards of efficiency on many of the dairy farms, because of the small size of herds. In 1964 the average size of herd in Devon and Cornwall was only 19 compared with 35 in the other four counties: in the whole of England and Wales it was only 26.

*Agricultural Economics Department, University of Exeter; *The Devon Farm Survey: 1965*, in course of publication.

128. University investigations have shown that labour productivity is higher on the holdings of larger acreage. If, therefore, holdings which are no longer truly commercial are taken on by neighbouring farmers then the average size of holding will increase and the productivity of the labour resources of the Region can be expected to improve.

Farm incomes and farm workers' earnings

129. Reference has already been made to variations in farming within the Region. In some districts farm structure is good, with the size and layout of units well adapted to the need of large-scale, highly mechanised production methods. Elsewhere the position is far less satisfactory. Present economic pressures are likely to be felt most keenly where there is a high proportion of small (or even medium-size) farms on poor quality or difficult land. Incomes on many of these farms are low, despite substantial financial help from the State. After allowance has been made for the living expenses of the farmer and his family, there is often little income left to provide capital to improve the fixed or mechanical equipment, to purchase additional land or to buy stock to intensify farming on the holding; nor is it easy for such farmers to borrow money.

130. There is some evidence that the weekly earnings of farm workers in the Region as a whole are slightly below the average for England and Wales (see Table 20). There are no reliable statistics for different parts of the Region, but the indications are that, on average, earnings in each county do not differ materially from the regional figure. Figures of average earnings, however, conceal considerable variations from farm to farm. For example, farmers in the industrial parts of the country may pay more than the minimum wage to attract or keep workers. Productivity agreements and contract milking and bonus schemes are being more widely adopted and lead to higher than average earnings.

TABLE 20

Average earnings of all hired regular whole-time adult male agricultural workers

Area*	Total average earnings, year ended September 1965	
	Shillings per week	Percentage of national average
ENGLAND AND WALES	**266**	**100**
Northern	262	98
Yorks and Lancs.	270	102
East Midland	267	100
West Midland	272	102
Eastern	260	98
South Eastern	274	103
South Western	258	97
Wales	256	96

*Ministry of Agriculture, Fisheries and Food regions.

Capital in agriculture

131. The current investment in farm buildings and works in the United Kingdom is of the order of £68 million annually; investment in plant, machinery, vehicles, stocks and work in progress may well be £165 million annually. Probably the largest single source of funds for investment is farmers' profits. But there are other important sources—for example, landlords' net rents (rents less expenditure on maintenance and repairs); grants from the Government, whether to farmers (which show up as part of net income) or to landowners through the Farm Improvement Scheme; bank credit, of which an extra £28 million was made available in 1965 over the figure for 1964; and credit from a variety of other sources such as the Agricultural Mortgage Corporation, auctioneers, private loans and—an important source—the agricultural merchants.

132. There are no regional or county statistics of investment in agriculture and horticulture or the availability of credit. It is not possible to say for certain, but it is a reasonable assumption, that farmers and growers in the South West are no less able to borrow and are in the main no less willing to invest than farmers elsewhere.

133. There is little information about the sources and use of capital in the Region. It has, however, already been pointed out that the chief source of capital is farmers' own income. If farm incomes in any part of the Region are significantly lower than average, it is more difficult for the farmers concerned to make the investment necessary to increase their size of business or to modernise their equipment. Moreover, it would be difficult for such farmers to borrow capital for improvements. On such farms the possibility of augmenting income from other sources, such as tourism, therefore has particular interest. It is hoped that the University of Exeter's investigation of the economics of the holiday industries in Devon and Cornwall, to which reference is made in Chapter 7, will throw more light on this subject.

FORESTRY

134. There are about 270,000 acres of woodland in the Region. Rather less than 200,000 acres are under scientific management; the

Forestry Commission own about one-third of these, and about two-thirds are under private ownership. The remaining 70,000 acres, also privately owned, are largely unproductive; although some will eventually be brought under management, much will remain unproductive simply because they cannot be worked profitably.

135. In the Commission's forests, more than 90 per cent of the plantations are coniferous (producing softwoods) and less than 10 per cent are broad leaved (producing hardwoods). These proportions are in line with the commercial demand for timber and wood products, and reflect the quality of the forestland, much of which is too poor to grow hardwoods. Private owners tend to grow more broad-leaved species, but are gradually changing over to producing a higher proportion of the conifers which are more profitable.

136. The Commission's woodlands currently produce over 25,000 tons of hardwoods and 85,000 tons of softwoods per annum, and the private woodlands produce about 190,000 tons and 75,000 tons respectively. Production in the Region could probably increase by one-third over the next twenty years, and there should be a ready market for as much timber as the growers can offer.

137. Some 2,000 people earn their livelihoods in forestry in the Region. The industry also provides employment indirectly to large numbers of hauliers, saw millers and wood processors.

FISHERIES

138. In 1965, total landings in South West fishing ports were valued at £800,000, compared with £61 million for the United Kingdom. About 700 full-time and 1,000 part-time workers were employed in fishing in the Region compared with 20,000 and 6,000 respectively in the United Kingdom. The fishing industry also provides employment in related activities such as net and gear manufacture, boat building and repairs, fish processing and ice-making. Although full information is not yet available for 1966, there are signs that the decline of the industry in Devon and Cornwall in earlier years has been halted and that the 1965 results may have been maintained.

139. Newlyn is the most important fishing port, and its market attracts fish from other ports up to 30 miles away. It is therefore vital to the existence of the smaller fisheries in the area. Newlyn also attracts some foreign landings especially by drifters who bring in their mackerel catch. Brixham is the second fishing port and its fishing is expanding. A Fisherman's Co-operative has been formed successfully at Brixham and this idea may be beneficial to other ports in the Region which have persistent marketing difficulties.

140. Newlyn and Brixham together account for about 50 per cent of the total landings in the Region, the remainder being handled at the many small harbours and coastal inlets. Many of the smaller fishing ports are now more concerned with holidaymakers, although there is still a small amount of shell fishing. In particular, there has been a revival of crab and lobster fishing off the north coast of Cornwall and there is now a useful export trade to France. However, the pilchard industry has continued to decline since the post-war peak in 1956.

141. The rivers of the South West provide some commercial salmon net fishing and a great deal of private angling, particularly for trout, as well as coarse fishing.

5 Mining and Quarrying

PART III
THE REGION'S ECONOMY
(cont'd.)

142. The South West Region possesses extensive mineral resources, some of which, for example coal, limestone, igneous rock, occur commonly in Britain, while others such as china clay, ball clay, tin and celestine are found only in this Region. The labour force employed in the mining and quarrying industries has remained relatively stable since 1960 at about 17,500 people. As Table 21 shows, the loss of jobs through the closure of coal mines in the Region has been counteracted by a fairly rapid expansion of employment in other mining activities and in quarrying.

TABLE 21

Employees in employment, mining and quarrying, 1960 and 1965*

Thousands

	1960	1965
Total in mining and quarrying	17·6	17·5
of which:		
Coal mining	4·5	2·4
Stone and slate quarrying and mining	5·5	6·3
Chalk, clay, sand and gravel extraction	6·6	6·0
Other workings	0·9	0·8

*South West Region, excluding Poole.

143. Employment statistics alone do not demonstrate the full importance of mining and quarrying not only to the Region but to the nation because these largely capital-intensive industries require a relatively small labour force.

144. Quarrying and mining (other than coal) are especially important to the economy of the West Cornwall sub-division which possesses an unusual diversity of mineral resources. These extractive industries account for about 6 per cent of the total employment in the Western sub-region compared with 1·3 per cent in the Region as a whole. The St. Austell china clay industry provides the bulk of the employment of this kind but there is also a fair-sized labour force engaged in other mineral extraction and quarrying for road stone and granite.

China clay

145. Cornwall and Devon have the only workable deposits of china clay in Great Britain and production is now mainly concentrated in the St. Austell area with other workings in the Lee Moor area of Dartmoor and on Bodmin Moor. This industry is prosperous and expanding: production of china clay has increased from 1·6 million tons in 1960 to 2·1 million tons in 1965. The importance of china clay to the British export trade is strikingly illustrated by the fact that exports have risen from about 1 million tons in 1960 (value £7·5 million) to nearly 1·5 million tons in 1965 (value £12 million). The United Kingdom is the largest exporter of china clay in the world.

146. The quality of china clay and the ease of working varies from pit to pit. Because of these factors, together with a constantly changing pattern of demand and the advance of production techniques, it is not easy to programme precisely the land requirements of the china clay industry. Pits which are, for one reason or another, temporarily abandoned as uneconomical to work are frequently brought into operation again with a change in demand or with the development of a new production process.

Ball clay

147. The ceramic clays known as ball clay are found in the land flanking Poole Harbour, between Newton Abbot and Bovey Tracey (where there are both underground mines and open pits) and around Meeth in North Devon. Ball clay is quarried only in this Region of the country and output is more than 500,000 tons annually, of which about half is exported. These exports have been rising steadily from 230,000 tons in 1960 (value £0·8 million) to 300,000 tons in 1965 (value £1·2 million). There are still large reserves of ball clay in South Devon.

Tin and copper

148. Two tin mines in West Cornwall are all

thet at present survive of the historic tin and coppar mining industries in Cornwall and Devon which go back to pre-Romen times and which reached their peak in the mid-19th century. After 1870, copper mining declined with tha exhaustion of raserves, while the decline of the tin industry some years later was largely causad by problems of deep mining and competition from oversees. The two tin mines now operating are South Crofty mine near Camborna and Geevor mine at Pendeen. Both have increased production in recent yeers, and have plans for further expansion. About 2,000 tons of black tin (i.e. concentretes containing some 70 per cent metellic tin) are produced annually.

149. With recent favourable prices in the world market, attention has again turnad to tin in Cornwall. A number of major mining concarns are actively prospecting along the whole length of the minerelisad belt between Dertmoor and Land's End, particularly in the area between Redruth and Land's End. Offshore areas are also being investigated, and e scheme to work tin-bearing sands by dredging is under way in St. Ives Bay. Developments are also taking place or proposad for treating tin-bearing sand dumps and residues. There is every reason to believe that the economic tin deposits have not been exhausted.

Coal

150. Although coal has been extensively worked in the Bristol-Redstock area for over two hundred years and in the Forest of Dean since medieval times, coalmining now is of little significence in the regional economy. There are only three small collieries still operating in the Radstock area and they produce less than 500,000 tons e year. One of these collieries, New Rock, is to be closed shortly beceuse reserves of coal are exheustad end the two remaining, Kilmersdon and Writhlington, will produce less than 250,000 tons of coal e year with a labour force of about 500 men. The last colliery in the Forest of Dean closed in 1965 but e small amount of coal is still won from the private 'gales' which are worked under traditional rights granted to miners who were born in the Hundred of St. Brievels and who have worked a year and e day.

Limestone

151. The South West is the greatest limestone producing region in the country with en output in 1964 of about 10·3 million tons—about 20 per cent of the total production in Englend and Weles. Quarries in the eastern Mendips produce about 7·7 million tons and those in South Devon about 2·1 million tons. Most of the limestone is used for road stone, rallway ballast, cement manufacture (near Plymouth) and for concrete aggregate. Nearly all the limestone produced is used within the Region. Quarrying in the younger limastones of the Cotswolds end near tha Dorset coast produces special building stone such as Bath, Doulting, Portland and Purbeck stones which heve nation-wide markets. The Portland stone industry practically doublad in size between 1959 and 1965, mainly because of the increased use of Portland stone in prestige office buildings, but building restrictions coupled with moves towards cheaper alternatives have since led to e decline in this part of the industry.

Igneous rock

152. Cornwell, Devon and, to a lesser extent, Somerset contain the main sources of igneous rock commonly occurnng es granite which underlies ell the high moorlands except Exmoor. Some of the granite is used for construction and monumental stone but the greater part of the production is used for road stona and concrete aggregate, the rising demand for which is shown by the fact that production elmost doubled from the 1947 level to 2·2 million tons in 1964, ebout 17 per cent of the total output of England and Wales.

Sand and gravel

153. The production of send and gravel in the Region in 1965 amounted to 5·8 million cubic yards—about 7 per cent of the total production in England and Wales. About 20 per cent of the regional production was used as building sand and 30 per cent as concreting sand, the remainder being gravel and hoggin. About 33 per cent of the total production is derived from pits in Gloucestershire and Wiltshire, in the river gravels of the Upper Thames Valley around South Cerney and Lachlade. There are other important sources at Warmwell Heath, Dorset, between Budleigh Salterton and Uffculme in Devon end from the Severn Valley gravels. Dredging in the Bristol Channel also provides sand and gravel and some concrating send is won from the china clay waste tips in Cornwell.

Other minerals

154. The range of other minerals worked in the Region includes chalk, mainly in Dorset and Wiltshire, brick clay and sandstone in many places, and slate at Delabole, North Cornwall. On Dertmoor, e smell emount of iron ore is worked as a source of micaceous haemetite, used in the manufacture of anti-corrosive paints. Earthy ferruginous deposits are worked near Bideford and Bristol; the products variously known as ochre, umber and mineral black are used primarily es pigments. To the south of Bath lies one of the few sources of commercial grade fuller's earth, which is supplied for use in the textile, chemicel and civil engineering industries. An area round Yate

TABLE 22

Derelict land, 1965

	Spoil Heaps		Excavations and Pits		Other Forms	
	Total acreage	Acreage justifying treatment	Total acreage	Acreage justifying treatment	Total acreage	Acreage justifying treatment
ENGLAND	**33,014**	**17,795**	**27,007**	**14,804**	**30,965**	**21,377**
SOUTH WEST	**14,250**	**2,018**	**1,729**	**450**	**2,887**	**1,013**
Northern	374	150	250	21	408	130
Central	73	18	610	373	97	88
Southern	1,667	323	229	22	968	686
Western	12,136	1,527	640	34	1,414	109

in Gloucestershire produces 75 per cent of the world ouptut of celestine, a rare strontium mineral which is used mainly in the pyrotechnic industry.

Derelict land

155. This is an appropriate point to refer to derelict land in the South West, since the Region's problems are mainly the consequence of past and present mining and quarrying.

156. In 1965, there were 18,866 acres of derelict land* in the South West. This is one-fifth of all the derelict land in England but, allowing for its size, the Region has less of its land derelict (0·3 per cent) then the more industrialised West Midlands, Northern and North Western Regions.

157. Table 22 shows the distribution of derelict land in the Region. The problem is most acute in the Western sub-region, which has some 75 per cent (14,200 acres) of the Region's derelict land and over half the land justifying reclamation treatment, mainly in the form of spoil heaps from metalliferous mining and stone quarrying in the Camborne-Redruth and Land's End areas. About 1,700 acres of the derelict land in this sub-region are deemed to justify treatment. The Southern sub-region has about 15 per cent of the Region's derelict land (2,900 acres) mostly in the Plymouth Area sub-division; about 1,000 acres are deemed to justify treatment. The remaining 10 per cent is in the Northern and Central sub-regions and is associated mainly with the colliery spoil heaps of the Forest of Dean and Norton-Radstock areas, the stone quarries in the Mendips, and the clay workings in the Bridgwater area. Some 800 acres in these two sub-regions justify reclamation.

158. Grants are payable to local authorities under various enactments for the treatment of derelict land. During 1965, some 88 acres were reclaimed in the Region, about 2·5 per cent of the total of nearly 3,500 acres which justify reclamation. Local authorities proposed to reclaim about double this acreage in 1966.

159. Unlike many other regions, the South West has suffered little dereliction from industrial development, but the legacy from the tin and copper mining in the far west is very extensive, particularly in the Camborne-Redruth area. With little pressure of development, such small reclamation as is being carried out in Devon and Cornwall is primarily for amenity reasons. Coalmining has not dominated and scarred the rural scene in Gloucestershire and Somerset as it has in other parts of the country. Many of the old spoil heaps in these areas have already been covered with trees and other vegetation, sometimes by intent and sometimes by nature, and happily the hilly terrain has itself prevented much ugliness. Wet gravel workings are increasing in the Upper Thames Valley on the Gloucestershire-Wiltshire boundary and pose considerable problems. In certain cases they can be utilised for boating, swimming, fishing and nature study, as at South Cerney where some of the worked-out gravel pits are already in use for recreational purposes and where there are proposals to create a new inland holiday resort complete with residential and recreational facilities. The most formidable restoration problem in the future may centre on the expanding china clay industry. Some use can be made of the quartz sand waste for concrete production, although not at a rate commensurate with the growth of the tips.

*Derelict land is defined as 'land so damaged by industrial and other development that it is incapable of beneficial use without treatment'. This definition includes sites such as disused spoil heaps, worked-out mineral excavations, abandoned industrial installations and land damaged by mining subsidence; it excludes land which is still in use (active spoil heaps and refuse tips), or which is subject to planning conditions requiring restoration or 'after treatment', and also all dereliction arising from natural causes (marshland, land subject to flooding).

6 Manufacturing

PART III THE REGION'S ECONOMY (cont'd.)

160. The manufacturing sector is not of the same importance in the South West economy as in some other regions, but it is nevertheless on a sufficient scale to make the Region an important contributor to national manufacturing output. Figures of regional output are not available for later than 1958. In that year, the net output of manufacturing industry in the Region, excluding Dorset, was valued at £339 million or 4·4 per cent of the total for Great Britain; the number of employees in employment in the manufacturing sector was also 4·4 per cent of the Great Britain total. In 1965, the Region had 4·5 per cent of the country's manufacturing employment, compared with 6·7 per cent of all employment and 6·7 per cent of the country's population. In the Region, the manufacturing sector accounted for 30·3 per cent of all employment, compared with 38·2 per cent nationally.

161. Perhaps the most distinctive features of manufacturing in the South West are a marked absence of 19th-century heavy basic industry and a considerable diversity which includes many modern types of industry; a comparatively fast post-war rate of employment and factory building growth; a steady post-second world war infusion of new manufacturing units from outside the Region; a marked concentration in the Northern sub-region; and a number of large units located in comparatively small towns. The South-western Development Area accounts for only about 6 per cent of the Region's manufacturing employment.

162. Manufacturing industry serves a wider area than that in which it is located, and a large proportion of the Region's manufactures are sent to other parts of the country and overseas. The Martech Study* commissioned by the Port of London Authority estimated that the South West's direct exports of goods abroad in 1965 were about 3 per cent of the value of total exports, probably somewhat less than the Region's share of manufacturing output. There are substantial exports of, for example, aircraft and aviation equipment, compressors, mechanical handling equipment, packaging and printing machinery, diesel engines, electronic equipment, shoe-making machinery, components and equipment for vehicles, cellophane wrappings and paper products, carbon black, textiles, clothing and footwear, foodstuffs, drink and tobacco products.

163. Despite its apparently small share of direct exports, industry in the Region gives the impression of being extremely export-minded and of playing an active part in the country's export efforts. The Bristol Chamber of Commerce and Shipping and the two large export groups, the Bristol and West Exporters' Club and the South West Export Association, have provided a marked stimulus to the Region's export effort.

Structure

164. Technologically advanced industry is well represented in the Region. The 1961 Census showed that the South West compared favourably with the country as a whole in scientific and technological manpower, with a proportion of such manpower to total employees in manufacturing industry 11 per cent above the national proportion. The regional proportion is particularly high in the large aircraft and aerospace industry. A good deal of the more recent manufacturing development in the Region has been in science-based industries, such as chemicals and electronic engineering, and the more traditional industries such as heavy engineering and printing have also kept well in step with technological developments.

165. The main structural features have been indicated in Chapter 3. Engineering and electrical goods, the largest single group of industries, are rather less important than

*Martech Consultants Ltd. conducted a major survey into traffic flows in 1964 on behalf of the Port of London Authority. All Britain's ports were included.

nationally, particularly on the electrical side. There is, however, a large engineering element in the vehicles group of industries, which includes aircraft and other vehicle engines, where the Region has above-average representation. The employment data in Chapter 3 both illustrate and conceal the diversity of manufacturing industry in the Region. The engineering industry itself encompasses a great number of activities. Few main sections of manufacturing in the Region predominate nationally. The regional tobacco and aircraft and aerospace industries figure most largely in the national structure, but some others are of large and growing importance.

166. Despite its lack of heavy industry, the Region has probably a rather higher than average share of capital goods production. It has clearly a lower share of consumer durable production because of its comparatively small stake in the output of motor cars, domestic appliances and furniture. But it may well have at least an average consumption goods component for, although it lacks a large textile and clothing industry, the Region is prominent in food, tobacco and footwear production.

167. Except for iron and steel casting in connection with engineering, there is no primary iron and steel production in the Region. The Benson Report* suggests that new non-integrated steel capacity may need to be sited on the Midlands—South East scrap-producing belt to serve the large consuming areas in this belt more economically. The nearness of the northern part of the Region to this belt suggests that locations such as Swindon may need to be examined for their suitability for any such new capacity.

168. No detailed analysis of the structure of industry by company grouping has been made but it is clear that manufacturing in the Region as a whole is not dominated by a few large companies, although the position varies from area to area. In Bristol, a few large firms are very important in the local manufacturing economy and a number of towns are heavily dependent on the fortunes of one or two firms, as for example, Melksham, Chippenham, Street and Tiverton.

THE MAIN MANUFACTURING INDUSTRIES

Engineering and electrical goods

169. Some 30 establishments, each employing 500 or more workers, account for about half of the employment in *mechanical engineering*. Products of particular importance are diesel engines and agricultural machinery, heavy mechanical handling equipment, cranes and dock machinery, hydraulic presses and injection moulding machines, mining equipment, compressors, high pressure valves, printing and packaging machinery, ball and roller bearings, pistons and piston machinery. In *electrical engineering*, about a dozen establishments, employing 500 or more workers each, account for nearly two-thirds of the employment. The main products are radio and other electronic apparatus, electrical machinery, domestic electric appliances and miscellaneous electrical goods. The group as a whole includes a considerable number of large companies, too numerous to illustrate by name.

Vehicles

170. The *aircraft and aerospace* industry, with 43,000 workers and quite a wide sub-contracting complex, dominates the 'vehicle' manufacturing order in the Region, where it employs three times the national proportion. About a dozen large firms account for the bulk of the regional employment. The three largest are Bristol Siddeley Engines and British Aircraft Corporation on the outskirts of Bristol, and Westland Aircraft Ltd. at Yeovil, the sole producers of helicopters in Britain. A number of other firms make aircraft equipment and instruments, the largest being Dowty Rotol at Gloucester and Smiths Industries at Cheltenham. In *motor vehicles*, the main unit is Pressed Steel-Fisher at Swindon (car bodies and components). A number of other firms make commercial vehicles or vehicle components and associated products. In *locomotives and railway equipment* the main units are the British Rail Workshops at Swindon and Westinghouse Brake & Signal Company at Chippenham.

171. The regional engineering and vehicle groups together employ 168,000, 42 per cent of total manufacturing employment in the Region (compared with 35 per cent in Great Britain). The aircraft and aerospace industry, motor car bodies and components, telecommunications and consumer durable goods account for about 70,000, but these industries feature a good deal more strongly in the Region then the statistical classification suggests because of the prevalence of sub-contracting.

Other manufacturing industries

172. In the *food, drink and tobacco group*, there is particular emphasis on bacon curing, sausages and pies, milk and milk products, ice-cream, chocolate, confectionery and jams. The largest employers are J. S. Fry & Sons, Unigate Creameries, Bowyers (Wiltshire) and C. & T. Harris (Calne). The tobacco industry,

*The *Steel Industry*. The Stage 1 Report of the Development Co-ordinating Committee of the British Iron and Steel Federation, July 1966.

represented by the Imperial Tobacco Company group, employs three times the national proportion.

173. Employment in *paper, printing and publishing* is about equally divided between the paper and board industry, in which regional employment is above the Great Britain average, and printing and publishing. The largest components in this section are those of the E. S. & A. Robinson and Imperial Tobacco groups in the Bristol area, and, outside it, Purnell & Sons at Paulton.

174. About half the employment in *clothing and footwear* is in footwear which has about twice the national proportion. The two large footwear production units are C. & J. Clark at Street, Somerset, and G. B. Britton & Sons at Kingswood, Bristol; there are also a number of smaller units, mainly in Somerset and Devon.

175. The regional *shipbuilding, ship repairing and marine engineering* industry is dominated by the Naval Dockyard at Plymouth. The other large unit is Silley, Cox & Co. of Falmouth. Ship repairing and re-fits are very much the main activity. Shipbuilding itself is on quite a small scale, although there are numerous small-boat builders.

176. Other manufacturing industry groups are smaller, but span a great range of products. Some have historic roots in the West Country such as wool cloth and gloves; others are comparatively new. Producers are mostly medium-size or small. There are few large employers: the main ones are Avon Rubber Co. in West Wiltshire; Imperial Smelting Corporation at Avonmouth; British Cellophane Co. of Bridgwater; John Heathcoat & Co. at Tiverton and, a more recent entrant to the Region, ICI Fibres at Brockworth.

Local dependence

177. With its large number of smaller towns, a feature of the Region is the degree to which the fortunes of particular localities are linked with large manufacturing establishments. Table 23 shows that the geographical distribution of these establishments varies considerably over the Region, and Table 24 shows the dependence of particular localities on the employment provided by such large establishments.

178. Bristol, with 18 establishments, each with 1,000 or more employees (48,000 employees), and Swindon, with six such establishments (23,000 employees), accounted for nearly half the total of 155,000 employees in Table 23. Except for Plymouth, these and other large town areas were not unduly dependent on large manufacturing establishments. Plymouth, however, is highly dependent on a single establishment, the Naval Dockyard (the Dockyard comprises a rather mixed set of activities, not all manufacturing). Four urban employment areas (Keynsham, Melksham, Dursley and Chippenham) had 30 per cent or more of their employees in such establishments, and 12 other areas besides Plymouth had between 10 per cent and 30 per cent. Of 13 manufacturing establishments employing 1,000 or more outside the Northern sub-region, eight were in localities with a fair or marked degree of dependence on them.

179. The extent of dependence would appear greater in some cases if employment among the town's residents alone were taken into the reckoning and even more so if calculated in relation only to employment in manufacturing. Adding firms controlling more than one such establishment in a locality, for example at Tiverton, or considering the linked clay extractive and processing establishments, as at St. Austell, would bring a few more places into the dependency reckoning. Furthermore, some other localities are noticeably dependent on establishments which employ less than 1,000 but are still large for a relatively small place. The picture of dependence is modified to

TABLE 23

Manufacturing establishments employing 1,000 or more in 1965

	1,000–1,999 employees		2,000 and over employees	
	No. of establishments	No. of employees	No. of establishments	No. of employees
SOUTH WEST	**32**	**43,000**	**26**	**112,000**
Northern	27	37,000	18	81,000
Central	3	6,000	3	31,000
Southern	1		4	
Western	1		1	

TABLE 24

Areas in which largest manufacturing unit had 1,000 or more employees in 1965

	% of employees in largest manufacturing unit		
	Over 30	10 and under 30	Under 10
Ministry of Labour Local Office Area	Keynsham Melksham Dursley Chippenham	Tewkesbury Forest of Dean Chipping Sodbury Midsomer Norton Trowbridge Street Bridgwater Yeovil Group Newton Abbot Paignton Plymouth Group Redruth Group Falmouth	Gloucester Cheltenham Stroud Bath Bristol Group Swindon Poole* Weymouth

*Poole percentage is more liable to error because of difficulties in estimating employee figures separately from Bournemouth and Christchurch

some extent by, for example, the progressive widening of labour catchment areas as more people are able to travel farther to work, but nevertheless remains relevant to an assessment of the part played by manufacturing industry in the regional economy.

CHANGE AND DEVELOPMENT

The historical background

180. The early manufacturing history of the South West was almost wholly connected with the woollen trade. At later stages, there was some development of silk and lace, in the clothing industry, in leather, and in food industries based on the Region's agriculture. At Bristol there was substantial growth of industry based mainly on imported raw materials, particularly tobacco, chocolate and paper-making.

181. The Region's textile trade declined in the Industrial Revolution of the 18th and 19th centuries. While generally the Region did not experience the main impetus of the Revolution, there were some developments of note. The Naval Dockyard developed at Plymouth and ship repairing at Falmouth. Swindon was chosen by Brunel as one of the country's main railway engineering centres. In West Cornwall, the growth of tin-mining led to a large engineering development at Camborne.

182. By the beginning of the 20th century the Region had nevertheless developed a considerable volume of manufacturing industry, somewhat dispersed geographically and with Bristol as the only really large centre. By 1923 manufacturing employment in Bristol totalled some 46,000, of which the paper, tobacco and chocolate industries accounted for about half. Bristol's main industrial growth between the two world wars was in aircraft manufacture in which employment increased from 3,000 in 1923 to nearly 14,000 in 1937. There was also some production of motorcycles and high quality cars in the Bristol area during the period but the enterprises changed character after the second world war. In Plymouth, manufacturing employment at about 10,000 was still comparatively small in 1923, and consisted largely of shipbuilding and marine engineering at the Naval Dockyard. It was at the Dockyard that virtually the whole of the industrial growth of Plymouth between the wars took place.

183. Growth of manufacturing during and since the second world war has particularly affected the Bristol-Severnside and North Gloucestershire sub-divisions, where there have been large developments especially in aerospace and other branches of engineering, mainly in Bristol but also in Cheltenham, Gloucester and other parts of Gloucestershire. Since the late 1950s, chemical and non-ferrous metal production has also greatly expanded on Severnside. Elsewhere in the Region, there has been considerable post-war development of industry in parts of Somerset (aircraft and components, electronics, footwear, plastics); at Swindon (mainly motor vehicle bodies and electrical and electronic engineering) under a London overspill agreement; at other places in Wiltshire, notably Melksham and Chippenham; and at Poole in Dorset (mainly engineering). There has been significant post-war development at Plymouth (especially in engineering, television, office equipment and footwear). Telecommunications and engineering have developed in the Torbay area. Since 1960 also, there have been some new developments in West Cornwall and engineering has

expanded in North Devon, both aided by Development District status.

Growth and change in manufacturing employment

184. A rough guide to longer-term growth is that the 1931 Census showed some 260,000 engaged in manufacturing in the Region (4·3 per cent of the Great Britain figure); at the 1961 Census this had risen to something over 370,000 (about 4·5 per cent). (The Census figures include employers and self-employed as well as employees, but these are relatively small in manufacturing industry.) Manufacturing employment statistics show an almost continuous increase between 1954 and 1964. Although the rate of increase tended to level off in the later of these years, both in 1954–60 and in 1960–64 regional manufacturing employment increased much faster than nationally.

185. In the decade 1953–63 (for which the most comparable figures are available), employment in engineering and electrical goods increased by 40 per cent, substantially above the national rate, and accounted for half the total manufacturing growth in the decade. There was also substantial growth in food, drink and tobacco; vehicles; textiles (largely in the man-made fibres sector); clothing and footwear (mainly in footwear); and paper, printing and publishing. Textiles and clothing and footwear declined nationally in the same period. The only manufacturing industry group in the Region which declined significantly in manpower between 1953 and 1963 was shipbuilding and marine engineering, and nationally this industry declined even more.

186. Chapter 3 showed that the main changes in the more recent period of 1960–64 were the large growth in the engineering and electrical goods industries and a substantial fall in vehicles. Reductions in employment in aircraft and locomotives and wagons more than outweighed a growth in motor vehicle bodies and components.

187. The contribution of the large manufacturing units to industrial growth has varied considerably from industry to industry in recent years. Although between 1960 and 1964 total manufacturing employment in the Region increased by some 17,000, employment in the large manufacturing establishments of 1960 (those employing 500 or more) decreased by something over 1,000. About 7,000 of the net employment increase between 1960 and 1964 was attributable to smaller establishments which moved into the Region during the period and about 13,000 to the smaller units already in the South West in 1960 and units which started from scratch in the Region. Further research is needed to determine whether the 1960–64 period was typical in this respect.

Movement of manufacturing industry

188. An analysis has been made of manufacturing companies setting up branches or transferring into and out of the Region and its sub-regions since the second world war. While there are limitations in the data, the analysis suggests that the South West, in relation to its total manufacturing employment, received rather a low proportion of moves from the rest of the country in the early post-war years in comparison with some other regions, but that the position has since become more favourable. The figures also suggest that the Region has been obtaining a considerable volume of inward movement, comparable for example to that obtained by the Northern Region. The closure rate of incoming units has been quite low in terms of employment and, it appears, in comparison with experience in the country as a whole.

189. In 1945–65 at least 189 moves by manufacturing industry into the Region have been identified. Of these, 56 were in 1945–51, 52 in 1952–59, and 81 in 1960–65. Of these moves 155 were still in operation in 1965, accounting for some 36,000 jobs (about 9 per cent of regional manufacturing employment in 1965). Of these 36,000 jobs in 1965, about 10,000 were in 37 units established in 1945–51, 13,000 in 39 units in 1952–59, and 12,000 in 79 units in 1960–65. Of the net growth of some 17,000 in manufacturing employment in the Region between 1960–64, more than 14,000 net was in units which had moved into the Region post-war.

190. Whether the number of units moving into the Region in 1960–65 and remaining permanently (after allowing for the inevitable proportion of closures to take place) will be larger than in the earlier periods cannot be judged at this stage. But the substantial increase in numbers of moves in this period suggests this may be so. The increase can be accounted for largely by the conferment of Development District status on part of the Region from 1960. Of the 81 moves in 1960–65, 28 were to Development Districts.

191. Of the units which had moved into the Region since 1945, 34 had closed or ceased manufacturing activity by 1966; but these employed about 4,700 at most so that, in terms of jobs, the affect of subsequent closure of incoming units has been small. The Region, then, seems to have provided a satisfactory new home or place for expansion for many firms since the war.

192. Since the war, only one net job moved

out of the Region (in terms of such 'moves') for every three net jobs that came in. Of 54 recorded moves out in 1945–65, 17 were in 1945–51, 21 were in 1952–59 and 16 were in 1960–65. By the end of 1965, 16 of these had closed or ceased manufacturing activity; the remaining 38 units then employed some 11,500: about 2,500 each in Wales and the Northern Region, about 1,800 each in Scotland and the North West Region, about 1,000 in Northern Ireland and the rest mainly in London and the South East.

193. It is difficult to generalise about the nature of incoming industry to the Region and the lessons to be learned from post-war experience. A great variety of industry can and does flourish in every region. Moreover, rapidly expanding industries are those most likely to be venturesome in movement, especially if in search of labour. It is logical, as the main industrial part of the Region adjoins the congested South East and West Midlands regions, that the newer and rapidly expanding science-based industries should have formed the major proportion of the 189 units identified as coming into the South West since the war. This has been both the cause and the effect of the growing technological content of regional industry. The industrial make-up of what has come in and remained is analysed in Appendix 17. Closures of incoming units have formed no pattern of particular significance.

194. Movement by manufacturing units within the Region (i.e. movement from one to another of the following broadly defined areas: North Gloucestershire-North Wiltshire; Severnside; the rest of Somerset and Wiltshire and the whole of Dorset; Devon and Cornwall) has been on a comparatively small scale. At the end of 1965, there were only about 24 units in operation, employing some 7,600 people, which had made such branch or transfer moves.

Industrial building

195. The considerable post-war gains recorded above from industry newly introduced were secured against a background of government control over industrial development in much of the Region. Also, in spite of this control, which has applied mainly to new building, a generally high level of industrial building has been maintained. Between 1954 and 1965, 26 million sq. ft. of new factory space was completed in the Region. The rate of building has been increasing, rising from about 2 million sq. ft. a year in 1954–59 to nearly 2·5 million sq. ft. a year in 1960–65. Completions have been about 5 per cent and 6 per cent respectively of the national total. This scale of new manufacturing capacity is appreciably above the Region's present proportion of Britain's manufacturing employment. Over 28,000 jobs are expected to result from industrial building completions in 1960–65 when these are fully manned (between 6 per cent and 7 per cent of the national total).

196. The Region's share of national industrial building has risen since 1958 when, on the one hand, development control became more strict in much of the Region and, on the other,

TABLE 25

Average annual area of industrial building completed per head of manufacturing labour force

sq. ft.

Area	1954–57	1958–63	1960–65
GREAT BRITAIN	**5·3**	**5·1**	**4·6**
SOUTH WEST*	5·6	5·8	5·1
South East	5·2†	4·8†	3·8
East Anglia			7·5‡
W. Midlands	5·5	4·5	3·8
E. Midlands	4·5‡	4·5‡	3·4†
Yorks & Humberside			4·5
North West	4·8	4·7	4·3
Northern	8·4	8·4	5·5
Scotland	5·4	5·8	5·5
Wales	8·5	10·9	10·0

*South West Region, excluding Poole
†Excluding Soke of Peterborough
‡Including Soke of Peterborough

special treatment was accorded to parts of the South West. Generally, however, the South West maintained a good relative position throughout the 1960s and 1960s, as Table 25 shows.

197. The division of new building in 1960–65 among regional industries was generally in accord with their share of the manufacturing labour force. Of 14·2 million sq. ft. of factory space completed in the period, engineering and electrical goods accounted for 3·5 million sq. ft. (25 per cent), food, drink and tobacco for 2·2 million (16 per cent), and vehicles for 1·8 million (13 per cent). Clothing and footwear and shipbuilding were the main industrial groups whose industrial building was well below their share of employment.

198. The Region's high *per capita* rate of industrial building applied almost throughout the range of industrial orders. Only in chemicals and shipbuilding was regional building *per capita* substantially below the national figure. In engineering and electrical goods, and food, drink and tobacco, the Region was substantially above average, as it was also in the regionally important clothing and footwear group. In the vehicles group it was at about the national figure. Figures for these and some other industrial orders are given in Table 26.

Board of Trade factories

199. Factory building by the Government has been only a small part of the total amount of factory building in the Region, because the Development Area and former Development Districts have contained only a small proportion of the Region's manufacturing industry and of its potential manufacturing labour force. Eleven factories have been built by the Board of Trade in the South West for lease or sale, covering 397,000 sq. ft. and now employing some 1,500. Four of these are in Plymouth, and seven in the parts of Cornwall and North Devon which are in the South-western Development Area. A further factory of 20,000 sq. ft. is being built in the Camborne-Redruth area. (In the country as a whole, the Board of Trade own some 1,160 such factories covering about 57 million sq. ft. and employing some 250,000.)

TABLE 26

Total area of industrial building completed per head of manufacturing labour force, 1960-65*

sq. ft.

Industrial Order	SOUTH WEST	GREAT BRITAIN
Engineering and electrical	33	23
Vehicles	29	28
Food, drink and tobacco	36	29
Paper, printing, publishing, etc.	33	30
Clothing and footwear	21	11
Shipbuilding and marine engineering	6	14
Timber, furniture	52	36
All manufacturing industries	35	28

*South West Region, excluding Poole.

SUB-REGIONAL MANUFACTURING INDUSTRY

200. Chapter 3 has shown that the proportion of manufacturing employment to total employment and the distribution among manufacturing industries vary considerably among the sub-regions. The Northern sub-region has more than half its manufacturing employment in the metal-using industries. The Central sub-region, excluding Poole, has only about one-third in those industries (Poole has a sizeable additional concentration, particularly in engineering and electrical goods, and clothing and footwear and food and drink together are of equal importance to metal-using). Metal-using industries account for more than half the Southern sub-region's manufacturing employment; shipbuilding and marine engineering (mainly the Plymouth Dockyard) is as important as the engineering and electrical goods group (in which the electrical side is relatively heavily represented). The Western sub-region has about half its manufacturing employment in metal-using, mainly mechanical engineering and ship repairing (the latter particularly at Falmouth); food processing is the only other significant manufacturing activity.

201. As noted in Chapter 3, manufacturing employment trends have differed considerably among the sub-regions. Much the highest rate of manufacturing employment increase in 1960–64 occurred in the Southern sub-region (10 per cent representing 5,600 workers). This was the result of rapid industrial growth at Plymouth, caused in large measure by its Development District status in 1960–61. The other three sub-regions all had some increase in manufacturing employment, but there was no increase in the West Cornwall sub-division which contained most of the then Development Districts in Cornwall. Since 1964, trends in the Western sub-region have been more favourable and manufacturing jobs currently in prospect suggest that these trends may continue.

202. As in the Region as a whole, employment in engineering and electrical goods increased substantially in all sub-regions

TABLE 27

Distribution of units new to South West Region in 1945-65 and still operational at end-1965

Area	New units No.	1965 employment in new units No.	Proportion of 1965 manufacturing employment employed in new units %
SOUTH WEST	**155**	**35,700**	**9**
Northern	61	17,400	7
Central	36	6,000	8
Southern	31	11,200	19
Western	27	1,100	6

between 1960 and 1964. The decrease in employment in the vehicles group was most pronounced in the Northern sub-region (particularly in the aircraft industry in North Gloucestershire and in locomotives and wagons at Swindon). There were significant increases in textiles in the Northern sub-region, due to British Nylon Spinners, now ICI Fibres Ltd., at Gloucester; and in clothing and footwear in the Southern sub-region, particularly in the Plymouth area.

203. Table 27 shows the distribution among the sub-regions of 1965 employment in manufacturing units new to the Region since the second world war. The Table reveals the important share of these units secured by the Southern sub-region (mainly the Plymouth Area sub-division) and the small average size of the units in the Western sub-region. Moves into Development Districts, or into places which had been Development Districts at the time industrial development certificates were obtained, numbered 28 (12 in the Southern sub-region and 16 in the Western sub-region of which one closed later) and the units concerned employed some 3,300 in 1965 (2,800 in the Southern and 500 in the Western sub-regions), about 9 per cent of the total for the Region. The Western sub-region benefited as much from inward moves from the rest of the Region as from outside.

204. Of the net growth in 1960–64 of over 14,000 jobs in units which had moved into the Region post-war, more than half was in the Northern sub-region (although hardly any was in the Bristol-Severnside sub-division) and more than one-third was in the Southern sub-region. The Central and Western sub-regions were comparatively small beneficiaries in terms of employment growth. But growth in these post-war units was a significant factor in the small manufacturing employment increase in the Western sub-region in this period, despite a higher incidence of closure. Outward movement from the Region was largely limited to firms in the Northern and Central sub-regions.

205. In the Northern, Central and Southern sub-regions, between 60 per cent and 75 per cent of the 1965 employment in units which had moved into the Region post-war was in the engineering and electrical goods and vehicles groups: vehicles (Pressed Steel-Fisher Ltd.) were particularly important in the Northern sub-region, and machines and machine tools, radio and electronics, and aircraft maintenance in the Central and Southern sub-regions. In the Western sub-region, a number of industries contributed, although clothing and footwear had more employees than any other and this was even more true when moves from elsewhere in the Region are taken into account.

206. Appendix 18 shows the distribution within the Region of industrial building completions in 1960-65. The Northern sub-region had 55 per cent of the Region's average annual industrial building completions of some 2·5 million square feet in 1960-66, and 45 per cent of the expected extra jobs. These were markedly lower proportions than its 64 per cent of regional manufacturing employment. It is in the Northern sub-region (except for Swindon overspill developments) that government control over industrial development has been strictest. The other three sub-regions all did relatively somewhat better in terms of additional floor space. In terms of expected extra jobs, however, the Central sub-region (and particularly the Wellington-Westbury sub-division, whose manufacturing labour force has fallen in recent years) had a low ratio, while the Southern and to a lesser extent the Western sub-regions had high ratios, reflecting the Development District status of parts of these sub-regions for some or all of the period. Expected extra jobs in the Western sub-region were, however, small in numbers.

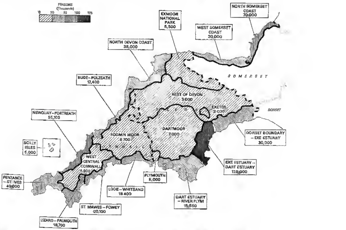
7 The Holiday Trades

PART III
THE REGION'S ECONOMY
(cont'd)

207. The South West, with its 20 per cent share of the British holiday market, is justifiably proud of its leading position in Britain's holiday trade. The trades serving the holidaymaker are prominent in many parts of the Region, but the main weight is concentrated on the Devon and Cornwall coasts, and to a lesser extent the Somerset and Dorset coasts, together with inland places such as Bath, Cheddar and the Cotswolds. In the main coastal resorts, the economy is very largely geared to holidays. Figure 17 shows the estimated peak holiday populations in Devon and Cornwall and the Somerset coast: at the peak, there were probably about 530,000 holidaymakers in these parts of the Region in 1964.

208. Nationally and regionally there is little comprehensive analytical data about the holiday sector—its output, changes in the pattern of demand and supply, its impact on other sectors of the economy. A good deal of study is now being directed to these matters at national and regional level, some of it particularly related to the South West holiday trades whose problems in some respects are of a special character. At this stage, therefore, we are able to offer only limited information and tentative impressions of the holiday sector in the Region.

Fig. 17 Holiday Areas: Devon, Cornwall and Somerset Coast.
As defined by the county councils with estimated peak holiday population in 1964 (Somerset, 1965).



Economic importance

209. The British Travel Association has estimated that British holidaymakers visiting the Region in 1965 spent a total of £95 million, besides travel costs. This figure includes expenditure by visitors on goods and services not produced in the Region. It is not possible to say precisely what the net output of the regional holiday trades was, or its proportion of the Region's net output of goods and services, but it is unlikely to have been more than about one-twentieth. The British Travel Association also estimates that holiday expenditure, excluding travel, in Cornwall and Devon in 1965 was about £65 million, roughly equivalent to the manufacturing output of the two counties together.

210. Appendix 19 suggests that the South West has secured a fair share of the large increase in British holidays in the post-war period including second holidays, etc. Main holidays in the Region, excluding Dorset, rose from about 3 million to 4 million during the 1950s, and increased further in the 1960s to about 5 million. Compared with the general trend of holidays within Britain, the South West gained more than other regions in the early 1950s, but its proportion since then has remained steadier. Individual parts of the Region may have experienced different trends.

211. The little information available about numbers and expenditure of overseas visitors points to the South West's share being small: in the summer of 1966, the South West attracted only 2½ per cent of those overseas visitors to Britain who stayed only in one place, a category of visitor accounting for nearly three-quarters of all visits to Britain from overseas.

Accommodation facilities

212. The majority of holiday visitors to the South West still take traditional holidays—in hotels and boarding houses and farmhouses; many also stay with friends and relatives. But a rising proportion of visitors arrive by car and use their cars to travel around, often staying at a number of places in the course of their holiday. This practice has encouraged the growth of camping and caravan sites and of country bed and breakfast places often situated away from rail heads. Nearly one-third of visitors now make use of the newer forms of accommodation represented by camping, caravans, rented villas and flats. New investment in holiday accommodation tends to be in parts of the coast away from the early established centres which were mainly based on rail communications. The types of accommodation which have increased most in the last few years, i.e. tents, chalets and caravans, are those most associated with the car, and have offered increasing competition to the more traditional accommodation, especially to the large number of boarding houses.

Labour

213. The holiday trades cover a wide range of activities and it is difficult to define their employment accurately. In 1965, there were about 51,000 employed in hotels and catering in the Region, excluding Poole, of whom about 29,000 were in the Southern and Western sub-regions, which cover the main holiday areas. In addition, probably about 15,000 self-employed people are engaged in hotels and catering in the South West. While not all of the hotel and catering trades are engaged in the holiday business, a variety of other trades, for example, distribution, are to some extent. A report by Cornwall County Council has estimated that, besides some 6,700 people in catering, hotels, etc., in the county serving holidaymakers, more than 7,000 people in other trades are so engaged.

214. It seems that labour supply has not generally been a seriously inhibiting factor in the growth of the holiday trades in the Region. The introduction of manufacturing employment in the holiday areas has not so far seriously affected the supply of labour to the catering industry. The seasonal nature of much of the work offered by the holiday trades does not seem to have been a serious deterrent to recruitment. New sources of labour have become available. Immigrant workers, mainly young and untrained people, have come for experience or for a working holiday. The large growth in the national student population has provided some labour in the summer months. More married women have come into employment. Moreover, the development of tourism represented by the growth in numbers of caravans, chalets, etc., has been in large measure in labour-saving directions. Nevertheless, at the height of the season there have been local shortages of skilled and experienced workers. The Selective Employment Tax is likely to encourage a trend towards maximum economy in all forms of labour (for example by more self-service) and, if government policy in the Development Area succeeds in substantially increasing manufacturing activity, better use will need to be made of the labour available to the holiday trades and a greater realisation of the benefits of training.

215. A number of colleges of further education in the Region, particularly in the main tourist areas, have for a number of years paid considerable attention to training in the hotel and catering industry. Facilities provided range from day release classes for waiters and other service staff to three-year full-time courses for the National Diploma in Hotel Keeping and Catering. In order to encourage employers to

give better training to their employees, the Hotel and Catering Institute, supported by the Ministry of Labour, established in November 1965 a training development committee and appointed a training development officer for the South West to foster training throughout the Region. This committee's work is a useful prelude to the activities of the Hotel and Catering Training Board which was established in 1966, and which should eventually lead to further improvement in both the quantity and quality of training provided by the industry in the Region.

Finance

216. Only limited information is available about the provision of finance for the hotel and catering trades and about their profitability, but these trades have expressed strong opposition to the Government's fiscal policies. Two recent taxation measures will tend to impair the profitability of hotels and other catering establishments to the extent that the cost of the measures may not be fully recouped by increases in charges or reduction in services. First, the Selective Employment Tax is levied on the hotel and catering trades, as on service trades generally, without refund. Secondly, the Industrial Development Act 1966 has replaced the former investment allowances for plant, which were applicable to new equipment in the hotel and catering trades. It is true that initial taxation allowances which do apply to the service trades have been increased substantially in respect of new plant and machinery; but these trades do not qualify for the investment grants which have replaced the investment allowances for manufacturing industry.

217. These changes in taxation arrangements, on balance adverse to the holiday trades, are taking place at a time when the holiday facilities in the Region need substantial adaptation and expenditure to meet changes in the pattern of demand and to attract more overseas visitors. On the other hand, loans and special grants under the Local Employment Acts continue to be available in the wider South-western Development Area, covering North Devon and most of Cornwall, as do building grants. An experimental scheme of loan assistance for partly defraying the cost of selected hotel development projects started after July 1966 has also been introduced by the Board of Trade to run throughout 1967 with a total loan commitment of up to £6 million. These loans will be available throughout Great Britain, but only for developments which are likely to result in significant new or increased earnings from overseas visitors staying at the hotels, so that unless the Region can greatly increase its overseas tourist trade only limited benefits can be expected from this scheme.

Transport facilities

218. An important factor in the growth of tourist services in the Region, as elsewhere, is the availability of attractive transport facilities and adequate provision for circulatory transport in the holiday areas. More simply, there needs to be provision for a safe, comfortable and speedy journey. Since the second world war, during a period of enormous growth of paid holidays, holiday travel has tended to grow whatever the transport facilities. This impetus has now expended itself and, in future, competition for holidaymakers will be more intense, with the attractiveness of journey facilities a key factor. It is for this reason that the holiday trades are particularly concerned about the amount of congestion on many of the roads to and within the holiday areas of the Region.

219. Railway facilities in the Region have been reduced in recent years. A number of rail links to holiday towns have been closed, including those serving Lyme Regis in Dorset; Seaton, Sidmouth and Budleigh Salterton in East Devon; Clevedon in Somerset; and Bude and other North Cornwall resorts. Against this, the seaside branch lines to St. Ives and Looe which were threatened with closure are now to be retained, and British Railways have made improvements in main line services and motorail facilities.

220. Air travel to the South West has not so far been a major factor in the holiday transport pattern. At the two airports used by holidaymakers to Devon and Cornwall, at Exeter and RAF St. Mawgan, the holiday traffic is fairly small and a good deal of it is transit traffic, for example, to the Channel Islands. While more holidaymakers may come to the Region by air in the future, any marked increase in this form of travel seems unlikely, at least by British holidaymakers.

221. Some valuable information about holiday transport in Devon and Cornwall has emerged from a study carried out by the University of Exeter in 1966 at the request of the Ministry of Transport in consultation with the Council. The study brings out four main features of the holiday transport pattern in these counties. First, it notes the overwhelming emphasis on the private car, now used by 80 per cent of visitors. The proportion of visitors travelling by car rose rapidly over the 1950s, but seems to have been fairly stable since about 1960. The proportion is higher than in any other region, probably because of the suitability of the area for holidays in which the car plays an integral part, but also because the car has advantages of convenience and low marginal cost, particularly for larger parties. Secondly, rail travel is now used by only 10 per cent of visitors on average and the study suggests that withdrawal

of the railway services to some resorts has not so far significantly reduced the numbers visiting them: the loss of freight and commuter facilities for the holiday establishments has probably been more serious than the loss of holiday custom. On the other hand, in the larger resorts the proportion arriving by train is probably well above the average of 10 per cent for the two counties, and here too the railway brings in essential supplies and workers as well as holidaymakers. Thirdly, the study expresses the view that the small importance of air travel to Devon and Cornwall may be mainly because it offers little time advantage at present to offset the higher costs involved. Finally, the study notes that the marked mid-season and Saturday peaks affect all forms of travel but present particular difficulty for the railways, since coaching stock is inflexible between uses. Car travel is probably not quite as concentrated on Saturdays as public transport, but it is well known that heavy congestion occurs.

222. The study also emphasises the growing problems of circulation of holiday traffic on the many narrow roads in the holiday areas in the two counties, and the increased impact of this traffic on the efficient planning of land use. It suggests that there should be scope for development on the lines of the Devon County Council's County Plan by identifying coastal areas for the traveller for use in different ways, for example, as resorts, popular beaches, secluded beaches without facilities and so on. Such a policy implies an information service to enable motorists to know where they are most likely to find the things they are seeking.

223. The conclusion suggested by the study is that, at least in the middle term, road traffic problems are likely to remain the core of the tourist trade's transport problem in the South West, and that neither rail nor air facilities are likely to play a significantly larger part in solving these problems. But there is some evidence that holiday visitors to Cornwall from the industrial North and Midlands are prepared to meet a modest premium on air fares to avoid a tedious journey by road or rail.

Organisation and publicity

224. The South West tourist services, as in the rest of Britain, participate in the national organisations of the tourist industry, including the government-supported British Travel Association. The Association has been encouraging the formation of regional tourist associations, and the South West Travel Association was established in 1965, covering Cornwall, Devon, Dorset and Somerset and receiving financial support from those local authorities which have become members. Its aims are to promote travel to the South West from other parts of Britain and from abroad; to encourage the development of road, rail, air and sea services and of accommodation and amenities; and to make people in the South West more tourist conscious by encouraging wider recognition of the economic and social benefits of travel.

225. Overseas publicity for the tourist trades in the South West is carried out by the British Travel Association in conjunction with the South West Travel Association. Publicity at home is done for the South West partly by the British Travel Association on an agency basis and partly by local authorities and individual concerns. Publicity is at present mainly directed to promoting individual places rather than the South West as a holiday region, although the South West Travel Association is trying to co-ordinate the efforts of the tourist trades in the area which it covers and to present a more unified picture of the tourist potentiality of the area.

Research

226. Some important studies of the holiday trades have been initiated centrally and regionally. The general economic aspects of the holiday trades in Cornwall and Devon are being investigated by the University of Exeter in a two-year study which the Council have sponsored and which is financed by the Government. The study will seek essentially to clarify the economic effects of the holiday trades in the two main holiday counties. A detailed accommodation and occupancy survey is being undertaken by Miles-Kelcey Ltd. for the British Travel Association, which is acting in co-operation with the South West Travel Association. This study, which will cover Cornwall, Devon, Dorset and Somerset, should show in detail where there are serious differences between accommodation supply and demand, as a guide to future action on investment and publicity. On the important question of the future demand for holidays in Britain, the British Travel Association is engaged in a continuous programme of research in countries throughout the world to determine the attraction and popularity of Britain and its component regions. It is also undertaking research into attitudes of British holidaymakers and into the development problems of particular resorts. Information complementing that obtained from these studies for the British Travel Association will be provided by a study of the demand and supply aspects of holidays in Britain by overseas visitors which is being undertaken by the Economic Development Committee for the Hotel and Catering Industry.

8 Office Activities

PART III
THE REGION'S ECONOMY
(cont'd.)

227. Offices are not a distinctive and readily identifiable sector of the economy in the same way that, for instance, manufacturing is. Indeed, they are often an integral part of establishments primarily engaged in other activities such as manufacturing or distribution. Nevertheless, offices share sufficiently common characteristics of potential importance to the South West—a fast rate of employment growth, a high proportion of female workers—to deserve consideration separately from the other major sectors of the economy. This chapter concentrates on the role of what may be described as 'detached' offices, i.e. those which do not require to be closely linked to non-office activities and whose contribution to the economy in which they are located can therefore to some extent be considered independently.

228. Much the greatest part of employment in 'detached' offices, at least outside Central London, is in such service industries as public administration, insurance, banking and finance and some types of professional and scientific services. Table 28 shows that the South West is relatively well endowed with these office industries mainly because of the large number of national government employees, chiefly in the Ministry of Defence. On the other hand, largely as a result of the small size of the Region's manufacturing sector, there is a noticeable lack of employment in the office occupations elsewhere, i.e. in industry at large. According to the 1961 Census, employment (including the self-employed) in office industries amounted to about 66 per cent of total employment in office occupations in the South West, compared with just under 50 per cent nationally. As a result, the proportion of employment in all office occupations in the Region was distinctly lower than nationally (16 per cent compared with $18\frac{1}{2}$ per cent). This difference clearly has some relevance to the high proportion of clerical workers among the unemployed which was noted in Chapter 3.

229. In the country as a whole the office industries are one of the most rapidly growing groups of industries and there have been no signs as yet that the growing automation of office jobs is likely to check the present rate of growth more than marginally in the foreseeable future. In recent years, this growth has been particularly marked in the South West

TABLE 28

Employment in the office industries, 1965*

Industry	Employment in South West		Employment in Great Britain
	'000	% of total employment	% of total employment
Insurance, banking and finance	27·7	2·1	2·7
Professional, scientific and selected miscellaneous services†	24·6	1·8	1·9
Public administration—of which,	96·8	7·3	5·6
National Government	50·4‡	3·8	2·4

*South West Region, excluding Poole.
†Accountancy services, legal services, other professional and scientific services and betting.
‡Including some 18,000 industrial civil servants.

(see Table 29) and has accounted for about a quarter of the total increase in employment in the Region. Within the group, the private sector has been primarily responsible for the fast rate of expansion, although the largest absolute gains have occurred in public administration.

Distribution within the region

230. In broad terms, employment in the office industries within the Region is distributed in much the same proportion as total employment, though with rather higher proportions in the Central and Southern sub-regions and rather lower proportions in the North Wiltshire and West Cornwall sub-divisions. The proportion of workers engaged in all office occupations, however, tends to fall off quite sharply from east to west in the Region (see Appendix 20). Opportunities for office employment outside the office industries therefore seem considerably less in the south and west than in the north and east of the Region, in line with the smaller proportion of employment in manufacturing in the south and west.

231. Offices are, however, usually located in towns—and to a large extent in town centres—and the largest office centres tend to be in the largest towns. Differences in the importance of the office industries to the various sub-divisions of the Region are primarily a reflection of the role and distribution of the larger towns. The two towns which serve a major regional function as office centres are Bristol and Exeter. Bristol is the fifth largest office centre outside London, and the boom in office building in recent years has made it the fastest growing of the provincial centres. Exeter is notable both as one of the smallest major office centres in England and Wales and as one of the most distant from London. The other towns in the Region where the office sector (even excluding local authority offices) tends to be most important are the administrative county towns—Truro, Trowbridge, Dorchester, Taunton and Gloucester—and Bath, where the Ministry of Defence is the main employer. Plymouth on the other hand has a notably smaller office sector than its size would lead one to expect and is particularly dependent upon employment in government offices, which offer less prospects of growth than does the private sector. The concentration of 'detached' offices in the private sector in the bigger towns is exhibited most markedly by a glance at the largest establishments (i.e. those employing 80 or more). Three-quarters of these were national or local government offices, and these were spread quite widely throughout the Region. The private offices, however, were preponderantly situated in towns of more than 50,000 population—half of them in Bristol. Despite the government regional offices in Bristol and the Ministry of Defence at Bath, almost 50 per cent of the employment in office industries in the Bristol-Severnside sub-division derived from private offices.

232. During the period 1960-64, the rate of growth of employment in both office industries as a whole and in each of the main industries in the group was fastest in the Northern sub-region and slowest in the Western sub-region. There were also marked differences at the sub-divisional level: much the fastest growth was in North Gloucestershire—because of a big increase in employment in public administration—and the slowest in West Cornwall; growth in Wellington-Westbury and Bodmin-Exmoor was also well below the regional rate.

Female employment

233. Office jobs are a major employer of female labour both nationally and regionally. (In 1961, 26 per cent of the female working population had office occupations in the South West compared with only 12 per cent of

TABLE 29

Average annual employment growth, 1959-63 and 1964-65 *

Industry	Growth in South West '000	Rate of growth in South West %	Rate of growth in Great Britain %
ALL INDUSTRIES	+20·1	+1½	+1
Total office industries	+4·7	+3½	+2½
Insurance, banking and finance	+1·2	+6	+3½
Professional, scientific and miscellaneous services	+1·3	+8	+3½
Public administration	+2·2	+2½	+2

*South West Region, excluding Poole. Figures for 1963-64 have been omitted since the statistics were affected by a major reclassification in public administration

males: see Appendix 20.) The future development of offices in the Region is therefore a matter of considerable importance in relation to the possibilities of raising female activity rates in the south and west, particularly since they may attract into employment many women who would not consider factory jobs. The proportion of female workers is somewhat lower in the office industries alone than in all office occupations, largely because public administration tends to employ more males than other office jobs. (This factor also probably helps to explain the relatively low proportion of females to males in office jobs generally in most parts of the South West.) Nevertheless, female employment in the office industries in the Region has been growing twice as fast as total female employment and accounted for almost 20 per cent of the total increase in the periods quoted in Table 29.

9 Ports and Communications

PART III
THE REGION'S ECONOMY
(cont'd)

234. The special significance of ports and communications in a region's economy is that they enable it to work. In the case of ports: at the minimum, part of a region's economy may rely upon the presence and efficiency of ports and shipping services for the delivery of materials and the despatch of products; at the maximum, they may in themselves be a major economic activity and a prime factor in determining the location, character and scale of industrial development. In the case of communications: road, rail and air transport are the means by which people and goods move, postal and telecommunications services are the means by which information is transmitted; without these, a community is cut off from the complex interchanges which make possible an advanced, and advancing, economy.

Ports and shipping services

235. The Port of Bristol handles about 8 million tons of goods traffic a year, about 3 per cent of the tonnage handled by all ports in Great Britain. Appendix 21 gives detailed traffic figures for 1965. Almost all the traffic now handled by Bristol is imports, most of it bulk commodities such as grain, animal feeding-stuffs, fertilisers and petroleum for consumption within the Region. Exports to foreign countries through Bristol are currently only about 325,000 tons a year compared with exports through Liverpool and London, the two major liner ports, which are running at over 5 million tons a year.

236. The Port of Bristol consists of three groups of docks. The City Docks were developed in the early 19th century and consequently have a limited future utility; Portishead Dock is also limited, as is part of the Avonmouth system. In May 1964 a scheme was put forward by the Port of Bristol Authority for a new deep-water dock system at Portbury, the first stage to provide nine new berths at an estimated cost of £27 million, a second stage of an additional 16 new berths at an estimated cost of approximately £23 million, and with ultimate expansion possible up to 40 or more new berths. The National Ports Council in May 1965 recommended that the Portbury scheme should go forward as meeting a national need for a third major deep-sea liner terminal and Stage I of the scheme was included in the Council's *Interim Plan for Port Development* published in July 1965. In July 1966, the scheme was rejected by the Government on the scores that Bristol had not a large enough hinterland in terms of industry and population for such a port to be viable and that, with the 'container revolution' under way, the case for a new major liner terminal had not been made out.* The Government invited the National Ports Council to consider alternative proposals for the development of the Port of Bristol, and the Port of Bristol Authority, in consultation with the National Ports Council, has commissioned studies and is preparing a more modest port expansion scheme.

237. The Region also has many smaller ports. Appendix 21 gives traffic figures for the 20 largest of these, which in 1965 handled some seven million tons of goods, almost as much as the Port of Bristol itself. The main traffic of these smaller ports at present is in imports of fuel for use within the immediate hinterlands of each port, and in exports of locally produced materials, such as clay and stone. The traffic through Plymouth, Poole, Falmouth and Bridgwater is predominantly imports of fuel, mainly petroleum products, by coastal shipping; Par, Fowey and Teignmouth handle mainly clay exports which are sent to all parts of the world; Newlyn's trade is the outward movement of locally produced stone by coastal services. As in other parts of the country, increased rationalisation of distribution services by inland transport has resulted in a progressive decline in coastal liner shipping services to the ports of the South West. They are now mainly limited to bulk cargoes, notably coal and oil.

**Transport Policy*, Cmnd 3057, paragraphs 106-108. HMSO 1966
See also: Ministry of Transport *Portbury: Reasons for the Minister's decision not to authorize the construction of a new dock at Portbury, Bristol* HMSO 1966.

238. The shipping service between St. Mary's and Penzance is the Isles of Scilly's main link with the mainland. This service is maintained by the Isles of Scilly Steamship Company. The Company also maintains motor launch services between St. Mary's and the off-islands; it has expressed concern about the cost of continuing to maintain these services.

Land transport

239. Unlike the corridor regions, the South West derives little advantage from national road and rail through routes. It is true that Bristol benefits from the main road and rail routes between London and South Wales, but the centres in the south and west of the Region, including Plymouth, have no motorway link with the rest of the country. The existing road pattern is one which has evolved to serve a primarily agricultural community with a multitude of small market towns. The railway system too was developed to meet a similar need at a time when the horse was its only rival, and to bring holidaymakers into the Region. It is now losing more and more of its share of freight and passengers to road transport, thereby adding to the congestion on the roads, particularly in holiday months.

240. In the rural areas of the South West, as elsewhere in the country, the problem of maintaining public passenger transport services has become increasingly difficult. As more people turn to private cars, fewer need to use public transport and rural bus and train services become uneconomic to run. This is especially so on the branch lines of the railways where the number of people using them even at holiday times is quite insufficient to make them pay.

Roads

The existing trunk road system

241. The trunk road system in the Region, which is the responsibility of the Minister of Transport, is shown on the General Reference Map No. 1 in the pocket. The total trunk road mileage, including motorways, is some 850 miles, about 10 per cent of the total trunk road mileage in Great Britain. The traffic flow diagram at Figure 18 shows that the route with the heaviest traffic density is the A38 running from Tewkesbury in the extreme north of the Region to beyond Plymouth in the south west. Most of the large towns in the Region lie on or near this route which, with the new Tamar Bridge, now provides a link from Plymouth to East Cornwall and thence via Bodmin and the A30 to Penzance.

242. The remaining trunk routes (with the exception of the A39/A361/A358 route serving North Cornwall and Devon and thence to Taunton) radiate from or near Gloucester, Bristol and Exeter, viz.:

from Gloucester

- A40 (Ross - Gloucester - Cheltenham - Northleach and thence to Oxford and London)
- A48 (Gloucester - Chepstow and South Wales)
- A417 (Gloucester - Cirencester - Hungerford and thence to London via A4)

from Bristol and Bath

- A4 (Bristol - Bath - Hungerford and thence to London)
- A36 (Bath-Salisbury and Southampton)
- A46/A435 (Bath - Stroud - Cheltenham and thence to Evesham)

from Exeter and Honiton

- A30/A303 (Penzance - Bodmin - Launceston - Exeter - Honiton - Ilchester - Amesbury and thence to London)
- A35/A31 (Honiton - Axminster - Dorchester-Wimborne and thence to Southampton).

The A38 route which extends northwards to Birmingham and beyond provides the Region's link with the Midlands and the North, and, via the Severn Bridge, with South Wales. The A40, A4 and A30/A303 routes are the main links with London and the South East.

243. The great bulk of the present trunk road system in the Region consists of single two-lane carriageways which, particularly in the south and west, are of sub-standard width and alignment. In general, these roads are carrying volumes of traffic at peak times much beyond their capacity, conditions being very bad at many points, especially in the summer months when large volumes of holiday traffic are circulating. This congestion is not only frustrating for the holiday traffic itself, but hinders the normal commercial traffic in the Region. Figure 18 illustrates the traffic flow on an average day in August 1961 (the Saturday flow would be substantially in excess of this). The flow is calculated in terms of 'passenger car units', on the basis that one private car or light lorry equals one passenger car unit and that one heavy lorry, bus or coach equals three passenger car units.

Other roads

244. Of the remaining roads, for which county and local highway authorities are responsible, the Minister has recently designated a new class of principal roads, which broadly consists of the former non-trunk Class I system. These in future will be the only non-trunk roads attracting direct grant from the Ministry, but contributions to works on non-principal roads will be made through the rate support grant. Most of the large schemes programmed on principal roads in recent years have been in or near the urban areas, in the form of relief

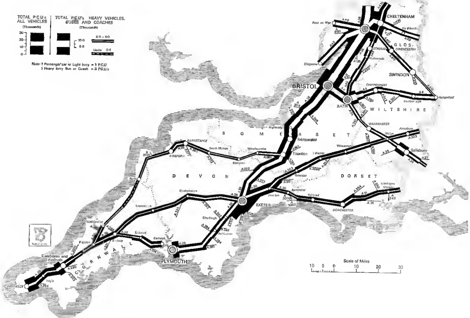


Fig. 18 Trunk Roads: Density of Traffic.
P.C.U.s based on 1961 traffic census for average day in August.

roads, by-passes and large-scale junction improvements.

Railways

245. The principal railway lines linking the Region with London are the Paddington-Newbury - Taunton - Exeter - Penzance line, the Waterloo-Salisbury-Yeovil-Exeter line, and the Paddington-Didcot-Swindon-Bristol line. The first of these lines provides the express passenger services to Devon and Cornwall. The main purpose of the second line is now to serve east Devon, Wiltshire and Dorset; British Rail have over the past year pursued a policy of withdrawing some of the stopping passenger services and so enabling the provision of semi-fast services calling only at the more important places. With the operation of their Southern Region electrification scheme this year British Rail plan to speed up the present services even more. The third line provides fast services between the north and east of the Region and London. A rail link with the Midlands and the North is provided by the Birmingham-Bristol-Exeter-Penzance line.

246. The more important of the cross country rail services within the Region are those between Exeter and Okehampton and Barnstaple, between Bristol, Yeovil and Weymouth, and between Bristol and Salisbury and thence to Southampton.

247. Even before the Beeching Report in 1963,* some railway passenger services within the Region had been withdrawn and others which had become little used and were losing money were under review. The Report proposed the withdrawal of many more such services. British Rail are required to give public notice of any proposal to withdraw passenger services on any line and if objections are lodged on behalf of users the Transport Users' Consultative Committee report to the Minister of Transport on the hardship implications of the proposal if any. The Minister then decides whether or not to consent to the proposal. Since the setting up of the regional economic planning councils in 1964, the Minister has consulted the councils about all passenger services withdrawal proposals in their regions. In the South West Region, the Council have been consulted about 31 proposals, and have expressed views to the Minister about the effect of each proposal on regional economic development. The Council have welcomed the Minister's recent decisions to refuse consent to the withdrawal of passenger services between Liskeard and Looe and between St. Erth and St. Ives, in view of the importance of these services to the holiday trade.

*British Railways Board. *The Reshaping of British Railways*. 1963.

248. This largely piecemeal approach is now to be superseded by the new policy for the railways outlined in the Government's White Paper on *Transport Policy* issued in July 1966 (Cmnd. 3057). The White Paper explained that, in order to restore stability to the industry, the general shape and size of the future railway system must be determined at an early date. The basic system should include, besides a network of main trunk routes linking the main population and industrial centres and secondary lines feeding the trunk network, some socially necessary services even though they are not remunerative or likely to become remunerative in a commercial sense, for example, commuter services in conurbations and services to remote areas. The Government intend to assume responsibility for losses on unremunerative services which are retained for social reasons.

249. Details were published in March 1967 of the size and shape of the railways network which the Minister and the Railways Board have now decided should be retained and developed as the basic network for the country. The network definitely to be retained in the South West Region is shown in the General Reference Map No. 1 in the pocket. It includes the main Paddington-Exeter-Plymouth line right down to Penzance: on strictly commercial principles this line would have stopped at Plymouth. Other commercially unremunerative lines to be retained as 'socially necessary' include the St. Ives-St. Erth and Liskeard-Looe branch lines mentioned in paragraph 247 and also the Exeter-Okehampton, Exeter-Barnstaple and Castle Cary-Dorchester lines.

250. This new basic network leaves the future of the following existing passenger branch lines still to be decided:

- Barnstaple-Ilfracombe
- Taunton-Minehead
- Maiden Newton-Bridport
- Bristol-Severn Beach
- Par-Newquay
- Truro-Falmouth
- Cheltenham-Stratford-on-Avon
- Exeter-Exmouth
- Paignton-Kingswear
- Wareham-Swanage.

The withdrawal of services on any of these lines will continue to be subject to the consent of the Minister who will take account of advice from the Transport Users' Consultative Committee and the Council.

251. The Minister of Transport also announced in 1966 a new policy for the disposal of redundant assets on closed railway lines. British Rail continue to seek the Minister's consent to disposal of the land on which the track is built, bridges and station sites and accesses, and the regional economic planning councils advise the Minister on the implications for planning of such disposal. British Rail are,

however, now free to dispose of the track itself, signalling apparatus and station buildings since these deteriorata are liable to vandalism.

252. Withdrawal of railway freight services is a matter for British Rail alone, without reference to the Minister. In accordance with their national policy, British Rail are concentrating freight traffic in the Region on a much smaller number of railheads than previously, each serving a larger road-fed area. This more rational use of road and rail is aimed at providing fast, direct trunk freight services by rail, so giving a better service to customers. The new arrangements have met with teething difficulties in one or two areas. British Rail are keeping the situation under review.

Passenger transport services by road

253. Almost all the bus services north of Bridgwater and Salisbury are provided by the Bristol Group of companies which is controlled by the Transport Holding Company and is thus part of the 'nationalised' sector of the country's road passenger transport industry. An exception is Swindon where services in the centre of the town are run by the Corporation. In Gloucester, the Bristol Omnibus Company provides the services by agreement with the Gloucester Corporation, while in Bristol itself, a joint undertaking operates with assets owned jointly by the company and the Bristol Corporation.

254. Bus services in the main urban areas in the rest of the Region are provided by the Western National and Southern National Companies, and by the Wilts and Dorset Company, which are also controlled by the Transport Holding Company, and by the separate Devon General Company. In Exeter and Plymouth the major providers are the corporations who operate under pooling arrangements with the Devon General and Western National Companies respectively.

255. The main network of long-distance coach services within the Region is provided by operating partnerships of the Bristol Group and the Southern National and Western National Companies.

256. Most of the bus and coach services in the Region are thus operated by companies under Transport Holding Company control; so there is already a large measure of unified management of the services. Machinery for the co-ordination of bus and coach services with rail services has been established by way of standing joint committees of representatives of the main bus and coach operators and of the Bristol Division of British Rail Western Region. A passenger transport co-ordinating committee for the South West Region has recently been set up by the Minister of Transport to secure better co-ordination of passenger transport services. This committee is chaired by a member of the Council, and the Council will be kept informed of the progress made by the committee.

257. The problems facing bus operators in the Region are common to all regions. Rising costs and, because of the private car, a continual falling off in demand for public transport has led to more and more services becoming unremunerative. Far more buses and crews are needed to meet the demand at morning and evening peaks than can be used at other times of the day without running at a loss. Staff shortages too make it difficult to maintain services. In particular, there is the problem of unremunerative bus services in rural areas which is especially serious in this Region.

Inland waterways

258. The South West Region is one of the few in which inland waterways are still important in freight transport. Two of the six waterways in the Region controlled by the British Waterways Board together form a viable transport facility and have some future as such. They are the Gloucester and Sharpness Canal and the 42-mile navigable stretch of the River Severn, part of which lies within the Region. They provide an important route for bulk traffic from the Bristol Channel to the Midlands; the traffic handled is running at about three-quarters of a million tons a year.

Air services

259. The development of air services, especially passenger services, can be particularly helpful in a region such as the South West in serving the needs of existing industry, attracting new firms and encouraging tourism. While the provision of new or improved air services must be for the commercial judgment of the airlines, there must obviously be adequate aerodrome coverage if the air services which could be operated successfully are to be provided.

260. The Region is served by the domestic and international services operated from the municipal airports at Bristol (Lulsgate), Gloucester (Staverton) and Exeter, and from Southampton and Bournemouth (Hurn), just outside the Region. There are also regular civil flights, at present only in the summer, from the civil terminal at RAF St. Mawgan, near Newquay. BEA operate a helicopter service between the Isles of Scilly and Penzance heliport. A few air services operate from the small airfield at Roborough, Plymouth. Apart from these, there are a number of military aerodromes within the Region which may be used, with prior permission, by civil aircraft, mostly private and executive aircraft, and also a few privately owned small licensed airfields.

Postal and telecommunications services

261. The General Post Office is planning considerable modernisation of postal facilities throughout the Region and at Bristol has started a large rebuilding operation for the installation of modern electronic sorting and handling equipment for letter and parcel traffic to cope with the needs of the public and industry in the 1970s. The Post Office is also planning considerable extension and development of telecommunications services in the Region to meet the ever-increasing use being made of the service by the increasing population and expanding industry. Subscriber Trunk Dialling is already available to more than half the subscribers and is expected to be available throughout the Region very early in the 1970s. The Post Office in the South West is participating in the general introduction of computers, electronic telephone equipment and datel transmission equipment throughout the country, all of which will contribute to the extension of the communications facilities available.

262. To maintain these services and provide for continuing growth, about £16 million per annum on postal services and £20 million per annum on telecommunications work is currently being spent in the Region. An additional £4 million or so per annum is expended by the Post Office centrally on bulk contract work on behalf of the Region. Expenditure will continue to increase, and by 1970 is expected to reach about £18 million on postal services and £25 million on telecommunications, with an additional £8 million or so for central bulk contract work.

10 Energy Supplies

PART III THE REGION'S ECONOMY (cont'd)

263. The South West has one of the lowest demands for energy of any region in the United Kingdom. Its energy consumption in 1965 was 4·8 per cent of total United Kingdom consumption, in contrast with its 6·6 per cent share of United Kingdom population and 5·6 per cent share of United Kingdom employment. This is not surprising in view of the relatively high rural content of the regional economy and the relatively small manufacturing sector. The mild climate of the Region must also be a factor. Table 30 shows the consumption of the different fuels.

264. In line with the growth of population and industrial activity, regional energy consumption has been increasing—by about 12 per cent during the last five years or so. The biggest rise in consumption of primary fuels has been in fuel oils, and consumption of solid fuels has decreased. The future lies with an increasing use of fuels produced by the new processes—nuclear electricity and oil gas with, in addition, natural gas. The distance of the Region from the main coalfields has meant that energy prices have been relatively high in its largely coal-based fuel economy. The South West therefore stands to benefit more than many other regions from the major move to oil and 'piped' fuels which can be expected in the future.

TABLE 30

Consumption of Fuels, 1965

Fuels	Consumption	Per cent of UK total
Coal and Coke	3·3 million tons*	3·4
Oil	3·0 million tons*	6·0
Gas	130 million therms	3·9
Electricity	8,600 million kWh	5·5
Total fuels as coal equivalent	14 million tons	4·8

*Excluding 2·8 million tons of coal and about 1·0 million tons of oil used for making electricity and gas.

Coal

265. In 1965, nearly 6·1 million tons of coal and coke were consumed in the Region; most of the coal came from the Midlands, South Wales and Yorkshire. There is thus a considerable transport element in the cost of coal used in the Region. Demand for coal is falling, most rapidly in the house coal market (down by a third to about one million tons in the last five years) and in general industry (also down by a third to barely half a million tons). The biggest users now are the electricity and gas industries, which in 1965 consumed 1·6 and 1·2 million tons respectively, but the demand here is also likely to contract in face of competition from oil and natural gas.

Electricity

266. Three area boards supply the Region—the South Western, Southern, and Midlands Electricity Boards—but the South Western Board accounted for almost 60 per cent of the total supply in 1965. In line with the comparatively small manufacturing sector, industrial consumption per head of population is at present under 60 per cent of the national average. A particularly heavy financial task for the South Western Electricity Board has been connecting new supplies in rural areas. At March 1966, 90 per cent of farms had an electricity supply compared with only 20 per cent in 1948; 95 per cent of other rural premises now receive a supply.

267. The three area boards are supplied by the Central Electricity Generating Board which operates a national integrated supply system. The Generating Board is responsible for four major conventional power stations in the Region—at Portishead, Poole, Plymouth and East Yelland near Barnstaple. These, together with certain small conventional power stations have a total output capacity of about 1,600 MW. To this must be added the growing capacity of the Region's nuclear power stations located on the Severn Estuary. Two nuclear power stations are already in operation, at Berkeley

(276 MW) and Hinkley Point (500 MW); another at Oldbury-on-Severn (600 MW) is expected to be in operation in 1967. Work is to start in 1967 also on a second station at Hinkley Point, with a capacity of 1,300 MW, to begin operating in the 1970s. A hydro-electric scheme has been proposed by the Central Electricity Generating Board, the Bucks Mills-Cranford Pumped Storage Scheme at Clovelly, which would involve using surplus off-peak power to pump water into a high level reservoir, the water then being released to generate 900 MW at periods of maximum demand.

268. The Region is already a net exporter of electricity. In 1965 it produced some 11,000 million kWh, about 30 per cent more than the Region's own requirements, and the surplus was fed into the national grid.

269. The average cost to the South Western Electricity Board for power supplied by the Central Electricity Generating Board has over recent years been higher than the average cost to all area boards, although lower than for other areas of Southern England. The reasons for the higher costs are that the Central Electricity Generating Board charges are related to the load characteristics of the area (especially the relative size of the peak demand) and to the differences in the cost of fuels used in the power stations in each area (nuclear power supplies are not regionally costed). Fuel costs are influenced by the distance of the power stations from the collieries and, for the South Western Board, are some 11 per cent higher than the national average. The higher costs for bulk supplies, combined with higher than average distribution costs for a region as dispersed as the South West, have meant that the average price of electricity is higher than in any other area in England and Wales except London. In 1965–66, for example, the average price to all consumers in the South West was just over 1 per cent above the average for Southern England, about 11 per cent higher than the average for England and Wales and 17 per cent above the main 'coalfields' average.

270. With the further development of the national grid and its supply from a smaller number of very large conventional power stations, as well as from the growing number of nuclear stations, the effect of these higher fuel costs in the Region is diminishing, and the downward trend is expected to continue. The Central Electricity Generating Board has announced that it intends to discontinue the present method of calculating area fuel costs and to substitute predetermined 'area factors' for each Board. By 1970–71, a large part of the present differential will have been removed, and this should help to narrow price differentials between the South West and other parts of the country.

Gas

271. The Region is served by the Southern and South Western Gas Boards—mainly by the latter. The principal sources of supply are still coal gas works in the principal towns, but these are rapidly being replaced by the newer oil-based plants which cost less to build and operate and have marked technical advantages. In the longer term, natural gas will undoubtedly become increasingly important both as a raw material for gas making and as a source of direct supply. As a result of these changes, gas manufacture from coal and other expensive processes for producing gas from solid fuel will have been progressively eliminated by 1975, or even a little earlier, leading to a phased reduction in coke availability.

272. The main centre for oil-gas production is the Seabank Plant near Avonmouth, whose capacity will be increased from the present 20 million cubic feet a day (mcfd) to 170 mcfd from the winter of 1968–69. It will then substantially exceed the capacity of all the South Western Board's coal-gas plant. There are also small oil-gas plants for local supplies at Bristol, Bath, Gloucester and Swindon. An oil-gas plant of 20 mcfd capacity has recently started operation at Plymouth and is planned to be extended to 120 mcfd by not later than 1969.

273. Gas sales in the Region remained relatively static up to 1961, but have since risen by 10 per cent to 130 million therms. As with electricity, domestic consumption is relatively more important in comparison with industrial consumption in the South West than nationally. About 20 per cent of sales of gas are to industrial consumers, compared with about 30 per cent in England and Wales. Gas prices to industrial consumers are comparable to the average for Southern England. If one compares prices with coalfield regions, the differential is greater, partly because of lower coal transport costs in those regions and partly because some Gas Boards in the coalfields are able to buy coke oven gas from the National Coal Board and steelworks. As oil and natural gas are increasingly used as the materials for gas making, differences in production costs will narrow; but for some years coal-gas plants will remain important as a source of regional gas supplies.

Oil

274. Total oil consumption in the Region was some four million tons in 1965. This figure includes about one million tons of transport fuels and more than $1\frac{1}{2}$ million tons of fuel oil, the remainder being mainly gas/diesel oil and kerosene. About one million tons of fuel oil went to the Portishead, Poole, and Plymouth power stations. The comparatively few big manufacturing complexes in the Region account for its low industrial consumption, but

industrial consumption is expanding and has increased by 90 per cent since 1960. Liquid fuels now provide two-thirds of the heat load in industry.

275. Bulk supplies of petroleum products come mainly by sea from the nearer home refineries —Llandarcy and Fawley—and from imports through Avonmouth and some of the smaller ports in the Region. The dispersed settlement pattern of the Region, which entails relatively long hauls by rail and road, gives a significant cost advantage to oil fuels as a source of energy for the Region.

11 The Construction Industries

276. Including both the self-employed and employees, about 126,000 people were engaged in the construction industries in the Region in mid-1965 (excluding professional people not with contractors). Most of these were in firms of contractors registered in the South West. The large national contractors employed about 8,000 local men on projects within the Region. In addition, a substantial number were employed in the direct labour organisations of local authorities, by Government departments and nationalised industries, etc.

277. Regionally as nationally, the construction industries are notable for the number of small firms. Of 7,849 firms registered in the Region, excluding Poole, in 1965, over 5,000 employed five operatives or less, and only 11 firms employed 500 or more. Many of the small firms are engaged primarily in repair or maintenance work, or sub-contract their labour.

Output, demand and growth

278. The estimated value of the output of the construction industries in the South West in 1965 was £254 million, a little over 6 per cent of the industries' output in Great Britain as a whole. Private contractors accounted for 83 per cent of this sum, with an estimated output of £166 million on new construction and about £46 million on repair and maintenance. The output of the direct labour organisations of local authorities, etc., was mainly in the repair and maintenance field.

279. As in the country as a whole, the construction industries are subject to considerable fluctuations in demand. They are particularly vulnerable to changes in general economic conditions. In the private sector, they are also subject at present to the licensing controls operating on new buildings outside the Development Areas costing more than £50,000 (excluding industrial buildings, which are regulated by industrial development certificates and housing). Figure 19 shows that there was a generally rising trend between 1961 and 1965 in the load of new building and civil engineering work in the Region. Private enterprise house building was primarily responsible for the large increase between 1963 and 1965. Contractors registered in the South West increased their production by an average of about 6 per cent a year between 1960 and 1965—by 1 per cent through expansion of the labour force and by 5 per cent through increased productivity. Nevertheless, the construction industries were overloaded at the peak in many parts of the Region and there were often acute shortages of craft labour and certain building materials.

280. Table 31 shows how the load of new construction work was distributed between 1964 and 1966. In these 33 months, orders were obtained for new construction work to a value of £508 million (6·3 per cent of the total for Great Britain). About 60 per cent of the orders came from the private sector, and 40 per cent from the public sector. Housing, both public and private, accounted for 50 per cent of the total, industrial buildings for 12 per cent, and roads for 4 per cent.

281. Figure 19 illustrates the effect of the measures taken by the Government in July 1965 and July 1966 to limit the demand in the country's economy. In the construction industries in the Region, the load of new orders fell sharply, unemployment increased, rising to a rate of 7 per cent in February 1967, and outstanding vacancies declined.

Skilled manpower

282. The industries look mainly to the apprenticeship system for the skilled men they need, although the government training centres are also adding to the country's stock. The number of apprentices in the Region increased from 5,980 to 8,340 between 1960–65. The rate of

TABLE 31

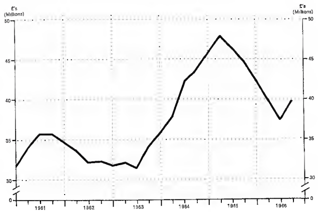
Distribution of new construction orders, 1 January 1964 to 30 September 1966, at current rates*

Type of work	Value of orders obtained £ million	Per cent of total regional orders %
1 PUBLIC SECTOR		
a **Dwellings**	70·5	13·9
b **Public corporations (Gas, electricity, coalmining, railways, air)**	24·5	4·9
c **Civil**		
Education:		
Schools	19·0	3·7
Universities	4·5	0·9
Health	11·5	2·2
Offices, garages, factories, etc.	9·0	1·8
Roads	21·0	4·2
Harbours	2·0	0·4
Water	4·0	0·8
Sewerage	13·0	2·5
Miscellaneous	25·0	5·0
Total public non-housing *b* and *c*	133·5	26·4
Total public sector *a*, *b* and *c*	204·0	40·3
2 PRIVATE SECTOR		
a **Dwellings**	187·0	36·8
b **Industrial buildings**	61·0	11·9
c **Other buildings**		
Offices	10·0	2·0
Shops	15·0	3·0
Entertainment	10·5	2·0
Garages	5·5	1·1
Schools and colleges	4·0	0·8
Miscellaneous	11·0	2·1
Total private non-housing *b* and *c*	117·0	22·9
Total private sector *a*, *b* and *c*	304·0	59·7
Grand Total	508·0	100·0

*South West Region, excluding Poole

wastage is such that about one in six of the craft force should probably be an apprentice just to maintain the present size of the skilled labour force. There are shortfalls from this target among some trades at present, but the shortening of the epprenticeship period from five years to four and the setting up of the Construction Industries' Industrial Training Board should help to improve the position. There will undoubtedly be a need for retraining within the industry in the future as building methods change.

Fig. 19 Quarterly Intake of New Work (mid-1965 prices) in the South West.



12 Incomes

283. Most of the analysis of the Region's economic performance in earlier chapters has necessarily been in terms of employment. Life in the Region to a major degree depends upon the amount of income generated by economic activity in the Region and its distribution among the population. There is a general lack of adequate and up-to-date information on this subject at present, particularly for sub-regions, but it is possible to draw some preliminary conclusions.

284. According to the Ministry of Labour family expenditure surveys, average personal incomes in the Region have tended to be somewhat below the national average, well below incomes in the most prosperous regions though higher than in Scotland, Wales or Northern Region. In the period 1961–63, median household incomes in the Region were about 9 per cent lower than in Great Britain, although the average size of household in the South West was only slightly smaller.* Differences within the Region itself, however, are much more marked than differences between the regional and national positions. Some broad idea of the scale of these differences can be gauged by relating Inland Revenue statistics of total income by counties to the resident population (see Table 32).

285. Because of retirement, non-employment incomes, particularly in Cornwall, Devon and Dorset, are a much higher proportion of total incomes than elsewhere and total earnings are correspondingly lower. However, the differences in average incomes within the Region are partly a reflection of the lower activity rates in the far west: average earnings of those actually in employment vary somewhat less widely, although in 1964–65 the average for Devon and Cornwall was some 13 per cent below the national level.

286. Major disparities in incomes between different parts of the country could in theory be offset by differences in the cost of living. No regional cost-of-living indices are compiled at present but consideration of such information as is available on, for example, the price of food, fuel and housing suggests that the cost of living in the Region, even in the south and west, is unlikely to be substantially different from the rest of the country.

287. Since 1950, both employment incomes and profits and professional earnings in the South West have tended to grow more rapidly than nationally, and since the mid-1950s average earnings in Devon and Cornwall, which had been falling behind, have more or less kept pace with the national rate of increase. However, probably because of a relative decline in the proportion of persons working, *per capita* incomes in the Region have increased no faster than in the country as a whole—and possibly rather more slowly.

288. One cause of the lower employment incomes, particularly in the south and west, is the greater importance of agriculture and the service industries in the local economies since these industries—and particularly farming—

*Family expenditure survey figures are based on small samples of households in each region and, because of possible sampling errors, they provide only broad estimates of inter-regional differences in incomes

TABLE 32

Estimated *per capita* incomes by counties, 1964-65, as a proportion of the regional average

Per cent

Cornwall	Devon	Dorset	Somerset	Gloucestershire	Wiltshire
83	91	94	94	119	100

tend to give rise to incomes substantially lower than those received by workers in manufacturing industry. The available information (although this is drawn from a number of sources which may not be directly comparable) indicates that in 1965, average weekly earnings of male agricultural workers in the Region (258s. 0d.) were about 32 per cent lower than those of men manual workers in manufacturing in the Region (378s. 0d.) and 27 per cent lower than the average for all male employees (355s. 0d.). The difference in earnings cannot wholly be attributed to these structural factors, however. Appendix 22 shows that, in 1964 and 1965, average weekly earnings of men manual workers in the Region (excluding, among others, agricultural workers) were 6 per cent lower than the United Kingdom average. The indications are that the lower earnings as one goes westwards are also linked with a less intense competition for labour and, possibly, a rather lower level of output per head. Lack of evidence on factors such as the capital employed makes it impossible to draw firm conclusions about the efficiency of economic activity in the south and west. It seems unlikely, however, that this is inferior to the national average—certainly the success of firms which have moved into the area, as shown by their fast rate of employment growth, suggests that there are no inherent obstacles to competitive operation (apart perhaps from the higher cost of transport).

289. Another significant feature is the markedly low level of incomes for females. In 1965, according to the Family Expenditure Survey, the median level of weekly earnings for females in the Region was about 14 per cent below the national figure (even before allowing for the seasonal nature of much employment in the South West) whereas the corresponding figure for males was only 4 per cent lower. These data provide further confirmation of the conclusion of Chapter 3 that the pressure of demand for female labour in this Region has been substantially lower than elsewhere.

13 Housing

PART IV
LIFE IN THE REGION
(cont'd)

290. Present-day housing in the Region reflects its economic history. Largely by-passed by the Industrial Revolution, the South West acquired a less formidable legacy of slum housing than the Midlands or the North; on the other hand, it has a high proportion of houses in agricultural areas which, although often in picturesque surroundings, lack piped water and modern sanitation. The rapid progress made in the elimination of the worst of the slums—many local authorities have completed their initial clearance programmes—has made it possible for the building industry to make up much of the shortage of dwellings that existed after the second world war and to meet the needs of the many newcomers to the Region. This is not to say that the South West has no housing problems. The broad cover of the statistics undoubtedly conceals some local shortages of houses of the right type and price; the existing stock includes many sub-standard houses in need of improvement or replacement and many more houses will be required to meet future population growth.

Housing progress, April 1945—December 1965

291. There were an estimated 1,172,000 occupied dwellings in the Region in 1965. Nearly 400,000 new permanent dwellings (about 8·5 per cent of the total for England and Wales) were completed between April 1945 and December 1965. Thus, more than one-third of the Region's present dwellings have been built since the second world war. Of the new dwellings completed since the war, 192,000 (48·5 per cent) were built by private enterprise, 190,000 (48·1 per cent) for local authorities and housing associations, and 13,000 (3·4 per cent) for government departments.

292. Construction of dwellings in the post-war period has broadly followed national trends and fluctuations, with the number of new dwellings completed rising from 11,150 per annum during 1945–51 to 28,350 per annum during 1961-65; since 1964 the annual rate of building has exceeded 30,000 per annum. The rate of house building in the Region has been higher than the national rate since 1951 (see Table 33).

293. Table 33 also shows that private enterprise housing has been more important in the Region than Great Britain. Since 1957, the number of dwellings built by private enterprise has exceeded the number built by local authorities, and over the period to 1964 this disparity increased. The rate of private enterprise building per head of population has been well above the national average since 1951.

294. Appendix 23 shows the progress of housing construction in different parts of the Region. In the Northern sub-region, with nearly half the new dwellings built in the South West since the second world war, there has been an approximate balance between local authority and private enterprise building, although the emphasis in recent years has been on private development. In the other three sub-regions, private development has had an overall and increasing predominance. As might be expected, there is a positive correlation between migration into the Region and the rate of housing construction, particularly in the case of private enterprise building which is immediately responsive to changing demand. The correlation has been particularly close in the retirement areas on the south coast of Devon and Dorset. Conversely, the slow rate of population growth in

TABLE 33

New permanent dwellings completed per 1,000 population

No.

Annual average 1951-65	SOUTH WEST	GREAT BRITAIN
Total	6·4	6·0
Public enterprise	3·0	3·4
Private enterprise	3·4	2·6

the far west of the Region has been associated with a low *per capita* rate of housing construction.

Sub-standsrd housing

295. No precise statistical information exists about the extent and distribution of sub-standard housing in tha Region; nor, indeed, is there any generally accepted standard upon which an estimate may be based. The possible limits of any programme of replacement may be derived, however, from an examination of evidence from a number of sources. Moraover, demolition and replacement are not the only answar to sub-standard housing. Many dwellings now judgad unfit, or those which sometime in the future may become so, are capable of improvement. Up to the end of 1965, about 50,000 houses in the Region had been brought up to e battar standard with the help of improvement grants.

a *Slum clearance*
The latast local authority astimetes of unfit dwellings which require replacemant total 23,000. But these astimatas are based assentially on local authorities' short-term priorities; they also exclude temporary prefabricated dwellings (about 7,000) which will soon have to be replaced. They are, therefore, a very incomplata representetion of the sub-standard housing problem.

b *Lack of basic amenities*
Information recorded in the 1961 Census shows tha number of dwellings which lacked certain basic amenities and which, therefore, either have or may becoma unfit for habitation unless steps are taken to improva them. In all, 327,000 dwellings in the Region (nearly 30 per cent of the existing housing stock) either shared or lacked one or more of these amenities in 1961. There were 37,000 dwellings without piped watar, 213,000 without a fixed bath end 93,000 without a water closet.

c *Rateable value*
The rateable value of e house is a broad measure of its quality. Whereas tha average rateable value of all dwellings in the Region is £63 per annum, there were 170,000 dwellings in 1965 (15 per cent of the existing stock) with e rateable value of less than £30 per annum. Most of these were built before 1914. Not all are sub-standard, of course: some may already hava had structural improvements, or will be improved in the future, to prolong their useful life beyond 1981. But in terms of broad magnitude this category of dwelling can be said to represent a potential housing problem which will need to be tackled in the future either by replacement or by improvement.

d *Age of houses*
It can be essumed that the total number of old houses in the South West will includa a high proportion of decrepit and sub-standard housas which ought to be replaced. There are no comprehensive records of war damage, past slum clearance or property modarnisation by which to estimate the number of old houses which are now obsolete. Using such figures as are available, the best estimate is that there are about 230,000 dwellings in the Region which will be over one hundred years old by 1981 (excluding those which ought to be preserved because of their quality and aesthetic value). Many of these, of course, are also housas of low rateable value or without basic domestic amenities.

296. Nona of these sources of evidence on its own can provide a setisfactory estimate of the number of sub-standard houses in the Region. The criteria used differ widely and there is a degree of overlap between them. Taken togather they suggest that there are between 100,000 and 200,000 dwellings which may need to ba rapleced or improved by 1981.

297. Appendix 24 givas a sub-regional and sub-divisional analysis of the sub-standard housing problem in terms of tha estimetes referred to above. It shows that, whatever the criteria used, there are considerabla variations within the Region. Some of thesa variations call for comment. In terms of short-term slum clearance programmes, lack of basic amenities, low rateable value end age, the picture in tha Northern sub-region es a whole is rather better than the regionel average, although the figures for tha North Gloucestershire sub-division reflect the problem of sub-standard housing in the Forest of Dean. The Southarn sub-region is also generally better than the ragional average, although the Plymouth Area sub-division has an above-average proportion of old houses. Housing conditions are worst in the Central and Western sub-regions. They are particularly so in the Western sub-region, notably in West Cornwall where there is a considerable legacy of old miners' cottages. Within tha Central sub-region, conditions are generelly better in the South East sub-division then tha Wellington-Westbury sub-division, where thare is a high proportion of old houses.

Present housing shortages

298. Ona way of estimating tha present numerical shortage of houses in the Region is to subtract the existing housing stock from the estimated number of potential households. On this statistical basis, the shortage in 1965 may have emounted to not mora then 10,000 houses in the whole Region. Indeed, in some parts (particularly the Western sub-region end the

Exeter-Torbay sub-division), there is an apparent surplus of houses as the housing stock exceeds the number of potential households. These 'surpluses', which probably represent either long-standing under-occupation or the trend towards second home ownership which is increasingly significant in the Region's holiday and retirement areas, have been excluded from the estimate of a shortage of 10,000 houses. There are other ways of estimating the balance of households and dwellings, each of which gives a slightly different result. These differences are, however, insignificant in relation to the gross long-term housing need (see paragraph 508). The general conclusion is that over the Region as a whole the current numerical shortage of houses is small although its local incidence varies considerably.

14 Education and Training; Health and Welfare; The Arts, Sport and Entertainment

EDUCATION AND TRAINING

299. The 11 local education authorities in the Region—the county councils and the county borough councils—carry the statutory responsibility for providing educational facilities in the public sector. With the scattered population of this large Region, co-operation between the authorities on the most effective use of resources is particularly important. The South West Regional Advisory Council for Further Education, on which industry and educational institutions are represented as well as the local education authorities, has done much to encourage this co-operation in the further education field.

Primary and secondary education

300. Rather over half a million pupils were at school in maintained primary and secondary schools in the Region in 1965. Primary and secondary education has been developing along the same broad lines as in other regions; with population in the county borough areas increasing relatively slowly, the greater part of the development occurred in the county council areas. In the primary sector, there are still large numbers of one- and two-teacher schools in rural areas; the local education authorities' policy generally is to close the smallest schools and regroup the children in schools with at least three teachers in key villages. Similarly, in the secondary sector, comprehensive schools in some localities have to draw on large catchment areas, and in many cases are very much smaller than the 10- or 12-form entry normal in the towns.

301. Regional variations in pupil/teacher ratios in schools are not great. The upper and lower limits in England in 1965 were 1 : 24·5 in the Department of Education's Northern Division and 1 : 22·4 in the Metropolitan Division. In this Region, excluding Dorset, the pupil/teacher ratio was 1 : 23·4. In common with all other regions except the South East, the highest proportion of secondary pupils in all types of maintained schools was in classes with between 31 and 35 on roll. In sixth forms in maintained schools, 48·7 per cent of boys and 17·5 per cent of girls were following advanced level courses in subjects in the mathematics/science group only, and 12·4 per cent of boys and 12·8 per cent of girls included mathematics or a science subject in their A level course. Mathematics at this level was being taken by 46·5 per cent of all boys in sixth forms and by 10·8 per cent of all girls. These figures correspond very closely with the national averages.

302. One special feature of the Region is the relatively high number of independent and direct grant schools. In 1965, there were 21 direct grant grammar schools and 214 independent schools recognised as efficient. The national totals were 179 and 1,539 respectively and only the Department of Education's North West Division had more direct grant schools (55) and the South East Division more independent recognised-efficient schools (374). In this Region, excluding Dorset, 8·3 per cent of all pupils were in direct grant or independent recognised-efficient schools, a proportion only exceeded in Southern and South Eastern England.

303. In common with the south of England generally, proportionately more children stay on at school after the statutory leaving age in the Region than in the country as a whole. Thus, the raising of the school-leaving age in 1970 will have somewhat less effect here than in some other parts of the country. Similarly, pupils in the Region have a higher standard than the national average in their record of GCE attainments, and are bettered only in the South East Region. Of pupils who left maintained schools in the Region, excluding Dorset, in 1963–64, the numbers with two or more A level passes were about 2 per cent higher than the national average, and those with five O level passes and/or one A level pass were 4 per cent higher. The record in Dorset was broadly comparable. It is therefore not surprising that a higher proportion of school-

leavers in the Region go on to full-time further education than in many other regions.

Further education

304. The Region's facilities for further education are extensive. As well as the universities and other educational institutions which are national rather than regional, the local education authorities' technical colleges offer at all levels a wide range of courses, which are predominantly vocational and designed to meet the needs of industry. The colleges are at present organised at three broad levels: local colleges which provide mainly part-time courses at non-advanced level (many of them associated with apprenticeship schemes); area colleges which provide also some advanced courses; and regional colleges undertaking a wide range of advanced courses. There is good provision of local and area colleges and one regional college—at Plymouth—which is to be developed as a polytechnic. As noted earlier, a feature of the further education facilities in the Region is the provision of courses offering training in the hotel and catering industry, which is of special importance regionally because of the holiday industry.

Polytechnics

305. The White Paper *A Plan for Polytechnics and Other Colleges* (Cmnd. 3006) proposes that two of the polytechnics which are to be the main centres for the development of higher education in the further education system should be in the South West Region: at Plymouth—incorporating the work of the present College of Technology; and at Bristol—to take account of the work of the Bristol College of Commerce and the West of England College of Art, and of the possibilities of the further development of advanced work at the Bristol Technical College.

Universities and other higher education institutions

306. There are three universities in the Region—the Universities of Bristol and Exeter, and the Bath University of Technology which was founded in 1966, incorporating the former Bristol College of Science and Technology. Other independent institutions of higher education include the Royal Agricultural College, Cirencester, and Seale Hayne Agricultural College: while these are of national educational significance, their presence is particularly valuable in the Region, where agriculture is so important. The School of Mines at Camborne has an important place in the economy of West Cornwall; the Governors have put forward proposals which would enable the school to develop in its present location at Camborne in close co-operation with the local education authority.

307. There are 11 colleges of education for the training of teachers. They are associated with the universities and the majority are in the Bristol-Severnside sub-division. The Government has indicated that any national expansion programme is likely to concentrate on the enlargement of existing colleges.

Vocational and industrial training

Management training

308. There is a school of management studies at the Bath University of Technology, and some of the further education colleges (Bath, Bristol, Cheltenham, Swindon, Salisbury, Plymouth and Cornwall) run management training courses of various lengths, mainly for middle management. The further education staff college at Combe Lodge, Blagdon, and the adult education centres at Urchfont Manor and Dillington House also engage in management education. A few of the big companies in the Region have their own residential staff training centres, and the Engineering Employers' West of England Association has for many years provided a wide variety of courses in management techniques.

Craft training

309. The primary source of skilled labour is the apprenticeship system, for which industry is responsible. The technical colleges in the Region play an important part in this system, through their day-release courses and, in some cases, full-time training for first-year apprentices, mostly from the engineering industry. Craft training and other forms of industrial training—for semi-skilled work, office work, the catering trades and management—will increasingly be guided by the industrial training boards now being set up under the Industrial Training Act. The Engineering Industry Training Board has recently set up its own training centre at Plymouth.

310. Supplementing the apprenticeship system are the Ministry of Labour government training centres, whose role is to give accelerated training in skills to adults. There are at present three in the Region—at Bristol, Gloucester, and Plymouth. The Bristol Centre, which has been in existence for nearly 30 years, has 247 adult training places, and the Gloucester Centre, which opened in 1964, now has 215 places. Both are being expanded and between them will have about 50 more places by the end of 1967. The Plymouth Centre started in October 1966 and now has 204 places. The centres provide skilled training in engineering and construction trades, and in a number of servicing trades including instrument maintenance, motor repairing, and radio, television and electronic servicing. The Bristol and Gloucester Centres also provide first-year apprentice training in engineering and radio and electronics.

Training assistance in the Development Area

311. Since August 1966, the South-western Development Area benefits from the arrangements for training assistance provided by the Ministry of Labour. Any firm in a Development Area, whether new or already established, whose industrial development involves additional jobs of reasonable permanence can apply for training assistance covering both technical instruction and financial aid.

HEALTH AND WELFARE

Hospital services

312. The hospital services in the Region are within the administrative area of three regional hospital boards. The South Western Regional Hospital Board's area covers the larger part of the Region, serving about six-sevenths of the regional population. The rest of the Region is covered by the Wessex Board (most of Dorset and south-east Wiltshire) and the Oxford Board (the eastern parts of Gloucestershire and north Wiltshire). The teaching hospitals in Bristol are administered by a board of governors.

313. As well as meeting the needs of the resident population, the hospital services have to cater for the short term, but concentrated, demand from among the five million holiday-makers who visit the Region each year. The length of the Region, the distances between the population centres and the many small and relatively isolated communities to be served also constitute servicing problems, as do the high proportion of old people in some areas.

314. The long-term plan for the development of the country's hospital services was explained in *The Hospital Building Programme* (Cmnd. 3000) published in May 1966. The pattern of development for the future is to base the hospital service on a network of district general hospitals providing a wide range of treatment and diagnostic facilities for in-patients and out-patients, and including units for active psychiatric and geriatric treatment. The quality of existing provision can often be greatly raised by improving such facilities as pathology laboratories, X-ray departments, operating theatres and physiotherapy departments. A trend has already begun, and may be expected to grow, for those needing hospital care who would in the past have become in-patients to receive treatment as day patients or out-patients. An increasing demand for domiciliary health and welfare services goes with this trend.

315. In the South Western Hospital Region the Board inherited in 1948 a service based mainly on numerous small hospitals. Many of these, while excellent of their kind, cannot provide the full range of facilities demanded of a modern hospital. The Board plan to provide district general hospitals in the main centres of population to serve the surrounding areas. The programme involves building new hospitals at Exeter, Plymouth, Barnstaple, Truro, Weston-super-Mare, Taunton, and South Bristol, and extensive redevelopment of those at Bristol, Exeter, Yeovil, Torquay, Gloucester, Plymouth, Bath and Cheltenham. Even so, it is estimated that many of the smaller hospitals will still be needed and required to be upgraded to modern standards, especially for geriatric units. Psychiatric hospitals are also to be extensively modernised.

316. Similar developments are planned for those parts of the Region served by the Wessex and Oxford Boards. They include new district general hospitals at Poole (now in progress) and, in the longer term, at Dorchester and Salisbury. Further expansion is planned of the new Princess Margaret Hospital at Swindon, where eventually a second general hospital will be needed.

317. Some of these improvement schemes have been started and others are in immediate prospect. For the remainder of the currently intended improvements in the Region's hospital services only a broad indication of priorities has been published. The Government's view is that hospital planning timetables must remain flexible to allow, among other things, for changes in the resources that can be made available for the national hospital building programme and in the relative priorities for different areas. The Ministry of Health's aim is to achieve a satisfactory common standard of service in all parts of the country.

Health and welfare services

318. The latest plans of the local authorities in England and Wales, including those of the authorities in the Region, for the long-term development of these services were published in June 1966 as *Health and Welfare: the Development of Community Care* (Cmnd. 3022). Capital investment on these services has not yet reached the levels envisaged in the plans of local authorities and it seems unlikely that it will for some time. Nevertheless, expenditure has been increasing annually, with the exception of 1966–67, which was affected by the deferment of certain capital projects announced by the Government in July 1965.

Family medical services

319. These services cover family doctors, dentists, chemists and opticians. The Region has rather more doctors for its population than the national average; the difference applies generally throughout the Region, although it is most marked in Cornwall, Devon and Dorset. Similarly, there is a higher proportion of dentists in relation to population in the South West.

THE ARTS, SPORT AND ENTERTAINMENT

The arts

320. The arts are material to the quality of life in the Region, to its capacity to attract and retain people of lively minds and to its capacity to draw foreign visitors. The Region has the benefit of some institutions and activities of national reputation; these include the Bristol Old Vic Company, the Dartington College of Arts, the annual Bath and Cheltenham Festivals, and the Bournemouth Symphony Orchestra which aims to serve the Region although located just outside it. Generally, however, the development of a regular and flourishing cultural life in all parts of the South West is largely a matter for the Region itself. A recent PEP report* estimated that the local authorities in the Region spent about £150,000 in 1964–65 on sponsoring the performing arts, the equivalent of a 0·29d. rate product or 10d. per head of population. In terms of rate product, this was rather better than the average for England and Wales, but below the level of expenditure in the Yorkshire and Humberside, North West and Northern regions.

321. The South Western Arts Association has achieved much in its first ten years of existence in its support of local arts associations, and is now seeking the full backing of the local authorities and other regional organisations in its efforts to extend its activities. One important development which the Association has sponsored, and which Devon County Council and Exeter City Council are supporting financially, is the establishment of the Devon Northcott Theatre and Arts Centre at Exeter, which will add much to the cultural life of this part of the Region.

Sports

322. Sport and physical recreation are also an integral part of life in the Region, especially for young people. The regional sports councils which have been set up during the past two years have been asked, as one of their specific functions, to consult and co-operate with the economic planning councils on matters affecting the future development of facilities for sport and physical recreation. In this Region, the South Western Sports Council, on which are represented all the local authorities as well as other interested organisations, are giving priority to making a major survey of existing facilities. The Sports Council have recognised that a survey of this kind is an essential preliminary to an assessment of regional needs and to the formulation of a regional policy for the development of sport and physical recreation. The results of the South Western Sports Council's work will clearly be of importance to the work of the Council.

*PEP *Sponsorship of Music: The Role of Local Authorities*, 1966.

15 The Region's Amenities

PART IV
LIFE IN THE REGION
(cont'd)

323. One of the Region's greatest assets is the rich variety of its countryside and coastline, developed on rocks of nearly every geological formation. It is one of the most attractive regions to live in, as well as a most popular holiday area. Map No. 3 in the pocket shows the amenity areas of the Region. Preservation of these amenities must be one of the objectives in proper planning for economic development.

The coastline

324. The Region is the most maritime in England and Wales. Its 718 miles of coastline, including islands, comprise nearly a quarter of the total coastline of England and Wales. It contains over two-thirds of the best coastline scenery (classified as of exceptional quality) in England and Wales as well as nearly half of the very good quality category. It has nearly half of the higher coastal cliffs (those over 50 ft.) with some superb examples at Land's End, the Lizard, in North Cornwall and North Devon. There are many beautiful river estuaries and valleys, such as the Fal, Tamar, Exe and Dart, and wide attractive bays, such as Mounts Bay, St. Ives Bay, Torbay and Lyme Bay. There is a great variety of seaside towns and holiday villages, ranging from the major resorts such as Torbay, Weston-super-Mare, Weymouth and Newquay to the small fishing villages of Cornwall and Devon.

325. It is estimated that approximately one-tenth of the Region's coastline is now substantially built-up, but the local planning authorities, conscious that this coastline is a priceless asset, now exert a strict control over coastal development. The varied coastline provides for many recreational pursuits such as boating, fishing, swimming and surfing, and the local planning authorities, aided now by the South Western Sports Council, encourage the provision of adequate facilities for such activities in selected localities. The National Trust has a considerable stake in the Region, particularly on the coast where it owns 45 miles of the exceptional and very good quality categories of coastline—about 57 per cent of the Trust's total coastal ownership in these categories throughout England and Wales.

Inland features

326. Although the coast has the mass holiday appeal, the inland parts of the South West Region abound in attractive and spectacular scenery. Much of the Region is free from industrial development and is essentially rural in aspect. There is a wealth of attractive villages and small market towns particularly in the Cotswolds, West Wiltshire, North Dorset and Devon. Some of these, such as Castle Combe, Lacock and Bourton-on-the-Water, are nationally famous and attract many visitors. Prehistoric remains abound: notable examples are Stonehenge, Avebury and Maiden Castle. There are many large and distinguished country mansions and castles such as Wilton House, Longleat House, Montacute, Stourhead, and Berkeley Castle, and the Region has some of the finest English cathedrals at Wells, Exeter, Gloucester and Salisbury. In Bath and Cheltenham the Region possesses two of the finest examples of Georgian and Regency urban architecture and planning.

327. To preserve the countryside and towns from sporadic and indiscriminate development, the local planning authorities have formulated long-term development policies in their statutory development plans. Green Belts have been approved by the Government around the Bath-Bristol and Gloucester-Cheltenham areas to prevent urban sprawl and preserve the adjacent attractive countryside. Rural development policy is aimed at preserving the countryside and enhancing its beauty in the context of a thriving agriculture, and is often based on the selection of key villages where development and provision of services are encouraged. Urban wirescapes and cross-country power lines all come

under the scrutiny of the local planning authorities. Policies for the preservation of historic buildings, trees and viewpoints and for control of the siting and size of advertisements all contribute to the preservation of amenity.

National Parks and Areas of Outstanding Natural Beauty

328. The Government's policies for the preservation of the countryside are at present directed mainly to the National Parks and Areas of Outstanding Natural Beauty. The National Parks Commission and the county councils and other local planning authorities have the duty of preserving and enhancing the natural beauty of these areas and encouraging enjoyment of them. They are isolated from the major urban conurbations, and the countryside is generally attractive and unspoilt. The most pressing planning difficulties arise from the areas' popularity with, and accessibility to, large numbers of holidaymakers giving rise to problems of traffic congestion and litter control.

329. The two National Parks in the Region—Dartmoor and Exmoor—cover more than 630 square miles. Much of the rolling granite upland of Dartmoor is open moorland used for rough grazing for cattle, sheep and ponies, but its boundaries include wooded, sheltered valleys east of the moor. The main problems in preserving the amenities of Dartmoor arise from its non-recreational uses: most of the north-western area is a Ministry of Defence training ground; china clay is mined in the south west; rivers have been harnessed and reservoirs built to provide water supplies; afforestation has reduced the amount of open moorland. In Exmoor National Park, mostly high moorland, there are problems of afforestation and tree felling, of ploughing and fencing of open land, all of which affect the character of the landscape and its enjoyment by the public, necessary though they are for those who make their living from the land.

330. Seven areas in the Region, totalling nearly 1,700 square miles, have been designated as Areas of Outstanding Natural Beauty. They cover the Cotswolds, the Quantock Hills, most of the Dorset coast from Lyme Regis to Poole with a large inland area, and most of the coastal areas of Devon and Cornwall. They contain some of the most attractive pastoral landscape, coastal scenery and beautiful villages in the whole of Britain. Perhaps the most serious planning problem arises in the Devon and Cornwall coastal areas, whose popularity for holidays poses a threat to the beauty of the coastline. In particular, the rapid post-war growth in the demand for caravan and camping accommodation calls for stringent planning measures to protect those parts of the coast whose capacity to accommodate these without damage to the landscape is limited.

Long distance footpaths

331. A South West Peninsula coast path stretching continuously from Minehead in Somerset round to Studland in Dorset has been approved in principle by the Government. Negotiations are now in progress for securing public rights of way over it. A short stretch of the Offa's Dyke path, on the east bank of the River Wye, lies within the Region.

Nature Reserves

332. The Nature Conservancy has 14 National Nature Reserves and two Forest Nature Reserves in the Region, five of them within Dartmoor National Park. They include such areas as Braunton Burrows, Studland Heath, Ebbor Gorge and Bridgwater Bay, and vary considerably in size and character. They have been selected for the importance of their flora, fauna, geology and physiography and the Conservancy has the duty of ensuring their conservation and use for research and study purposes. There are also three National Wildfowl Refuges, in the Exe Estuary, at Bridgwater Bay and at Slimbridge, Gloucestershire. The Nature Conservancy has also notified the local authorities of nearly 300 Sites of Special Scientific Interest in the Region; the local authorities are statutorily required to consult the Conservancy before giving planning consent to any development on these sites. The Nature Conservancy, part of the Natural Environment Research Council since 1965, co-operates with the National Parks Commission, the National Trust, county naturalists' trusts, the Forestry Commission, local authorities and individual landowners in the management of areas of ecological interest, including many smaller nature reserves in the ownership of county trusts.

Leisure

333. The need to plan positively for leisure in the countryside is now recognised. The Government announced in 1966 in the White Paper *Leisure in the Countryside* (Cmnd. 2928) its intention to complement the National Parks with Country Parks, which will be areas of pleasant countryside, easily accessible from the urban areas, reserved for concentrated outdoor leisure. This policy of concentration of people, traffic and recreational facilities, to prevent sprawl over a wide area, is applicable also in the National Parks and Areas of Outstanding Natural Beauty in the Region: by planning for intensive recreation in suitable areas, preservation of the vulnerable areas will be possible.

16 Social and Economic Trends

334. The four earlier parts of this *Draft Strategy for the South West* have scanned the past and present of the Region's economy and of its people. We now turn to the Region's future. The enquiry begins with the future which is in store if the present trends continue. Thereafter will come the Council's judgment on how the Region should seize on the trends which are welcome and seek to modify those which are not, and the conditions and requirements for so doing.

POPULATION TRENDS

Regional population forecasts

335. Population forecasting is not easy. More than half the people now living in the United Kingdom can be expected still to be here in the year 2000. Death rates are fairly stable. But birth rates shift as social habits change, and forecasts have to be adjusted in their wake. National forecasts made twenty years ago have been raised dramatically upwards in response to the evidence of the earlier ages at which the young women of Britain are marrying and having their first babies. How far the trend will go and whether families started earlier will turn out to be bigger families are, for the time being, matters for speculation. Migration movements into and out of the country affect future birth rates as well as original numbers. Rightly, therefore, the Government Actuary's Department, responsible for official population projections, is continually amending its forecasts in response to fresh knowledge.

336. Regional population forecasts must bear relation to the current official forecasts for the whole of the United Kingdom. They must also take account of population movements within the United Kingdom. They must allow for movements out of the more densely populated regions both of people who move independently and of those who make up 'planned migration' under 'overspill' schemes. They must further have regard to the aspirations of other parts of the country to halt or reverse their population losses through inter-regional migration. Here, immediately, regional plans jostle against each other. The White Paper on *The Scottish Economy, 1965 to 1970* (Cmnd. 2864) proposed that 'the present net outflow from Scotland of about 45,000 people a year should be reduced to 20,000 by 1971–72'. The parallel reports of English regions, published by the Northern and by the Yorkshire and Humberside Economic Planning Councils, show these Councils setting a limit to migration losses as a primary objective for their regions, and urging policies upon the Government accordingly. If they succeed the flow of people southward will be halted. What will be the effect on the South West if they succeed—and if they fail?

337. Thus, estimates of the future population of the South West made at any one point in time can be reliable only in terms of broad magnitude. They are susceptible to revision as new information on social habits becomes available. Government decisions regarding regional policy may significantly change the incidence and direction of internal migration. The forecasts for particular areas may be markedly affected by a decision for or against proceeding with an overspill scheme.

Estimated population change, 1964-81

338. Three elements are involved in making a forecast of future population within the Region: natural change, i.e. the net balance of births over deaths, among the currently resident population and their heirs; net migration; and the effect of net migration on natural change.

Natural change

339. The Registrar General issues regional population projections based on projections of the total population of the United Kingdom made by the Government Actuary's Department. The Registrar General's projections on

1964 information estimate that, without migration, natural change would yield an increase of 324,000 (or 9 per cent) in the civilian population of the South West between 1964 and 1981. Because of the high average age of its adult population, comparatively low rates of natural increase have been a feature of the Region over recent decades. This forecast implies a rather greater rate of natural increase for the Region than in the decade 1954–64, but one equal to only about two-thirds the rate forecast for Great Britain for 1964–81.

Net migration

340. The Registrar General's latest available forecasts of the regional distribution of the population of the United Kingdom assume that net immigration into the South West, excluding Poole, between 1964 and 1981 will amount to 309,000 people, of whom about one-third would come under planned overspill arrangements. All the regional economic planning councils were consulted about the internal net migration assumptions to be used for these estimates. Not surprisingly, their individual figures did not sum to zero, as nationally they must, and the Registrar General, in consultation with other government departments, found it necessary to make some adjustments to the figures suggested by the regions in order to arrive at a consistent national balance. After considering the effect of new regional policies, the Council believe that the Registrar General's adjustments have resulted in an unrealistically low forecast for the South West. A projection of the net migrational trends in the Region in 1954–64, with weighting given to the increased rate of net immigration during the early 1960s, would produce an increase in the regional population by 1981 of about 286,000 people, including Poole. This projection excludes any allowance for planned population overspill schemes since, on the experience of recent years, planned overspill migration is likely to supplement voluntary immigration rather than replace it. It is the Council's view, however, that even with existing national and regional policies the rates of net immigration into the Region, both for employment and retirement, are likely to be higher than during the past decade. Accordingly, the Council consider that it would be more realistic to assume that voluntary net immigration alone will account for a population increase in the Region, including Poole, of about 342,000 people by 1981. (This figure is not, of course, directly comparable with the Registrar General's forecast of 309,000 people mentioned above, which includes planned migration.)

Net effect of migration on natural change

341. Migration in the 1964–81 period will affect the natural increase in the Region to an extent dependent upon the net effect of inward and outward movements on the age and sex structure of the regional population. Retired people moving into the Region will add only themselves to the population. Young people moving in or out can be expected eventually to add to or subtract from the Region's births. Taking the South West as a whole, it is estimated that some 30,000 additional population may accrue to the Region during 1964–81 from voluntary net immigration.

Total change, 1964-81

342. Thus, on these figures, the Council are assuming that, with existing national and regional policies, the civilian population of the Region will increase by 696,000, or nearly 20 per cent, over the 1964–81 period, as follows:

by native natural increase	324,000
by voluntary net immigration	342,000
by net natural increase resulting from voluntary net immigration	30,000
Total	696,000

This number would bring the total population of the South West to nearly 4·3 million people by 1981.

Sub-regional implications

343. Table 34 summarises the possible internal

TABLE 34

Trend changes in civilian population, 1964-81

Area	Total 1964 '000	Net increase, 1964–81: By natural increase '000	By migration* '000	Total '000	Total %	Total 1981 '000
SOUTH WEST	**3,584**	**324**	**372**	**696**	**19·4**	**4,280**
Northern	1,626	199	164	363	22·3	1,989
Central	758	57	107	154	21·6	922
Southern	759	45	84	129	17·0	888
Western	441	23	17	40	9·1	481

* Includes net natural increase because of migration

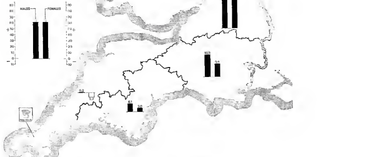
distribution of this prospective regional population in 1981, and the details are given in Appendix 25 (see also Figure 20). The estimates of natural change in each area are calculated by means of a projection based on the Registrar General's assumptions about fertility and mortality rates. The significant differences in the rates of population increase in the sub-regions and sub-divisions reflect their diverse demographic structures. The distribution of the Region's forecast gain from voluntary net immigration assumes that migrational trends within the sub-regions and sub-divisions during the past decade will continue at a slightly increased rate; no allowance is made for possible changes in recent migration trends in the Western sub-region if the operation of government policies in the Development Area succeeds in reducing the outward movement of workers. On this basis, the shares of different parts of the Region in the prospective regional gain by migration are rather more evenly distributed than are the gains by natural increase. The forecast population gain from natural change of immigrants has been allocated mainly to the Northern sub-region and to some extent to the Central sub-region on the assumption that a considerable number of the migrants into these areas will be people in the working-age groups coming into the Region for jobs, whereas the majority of migrants into the Southern and Western sub-regions will be in the older age groups on or near retirement.

344. On these calculations, all the sub-regions and sub-divisions could expect larger populations in 1981 than they have at present, but the rate of population increase would vary significantly, ranging from a 34 per cent increase in 17 years in the North Wiltshire sub-division of the Northern sub-region (where the influence of Swindon is clearly to be discerned in the forecast high rate of natural increase) to only 6 per cent in the same period in the Bodmin-Exmoor sub-division of the Western sub-region. The lion's share, 52 per cent, of the estimated increase in the population of the Region as a whole, falls to the Northern sub-region. The Central and Southern sub-regions follow with 24 per cent and 18 per cent respectively of the total increase, and the Western sub-region is a poor fourth with only 6 per cent.

345. The projection points clearly to where pressures will develop if the assumed trends are realised. The Bristol-Severnside sub-division will need to accommodate an additional 150,000 people between 1964 and 1981, and the North Gloucestershire, North Wiltshire and South East sub-divisions will each be required to take over 100,000 more people. A major population increase, of some 95,000 is forecast for the Exeter-Torbay sub-division, but further west only small gains are estimated—34,000 in the Plymouth Area sub-division, 28,000 in West Cornwall and 12,000 in Bodmin-Exmoor.

346. The consequence of these estimated

Fig. 20 Civilian Population: Estimated Changes in Working Age Groups, 1964-81, by Sub-Regions.



trends is that the Northern and Central sub-regions would have slightly larger shares of the regional population in 1981 than they had in 1964 while, conversely, the shares of the Southern and Western sub-regions would have fallen. There is nothing in the present structure, in other words, which would cause any break in the long-term shift of emphasis in the population of the Region from the west to the east, and a regional strategy must start from this fact.

Estimated population change, 1981-2000

347. It is impossible to predict with any certainty what may be the longer-term effects on the demography of the Region of existing national and regional policies, let alone the effects of new policies which may operate in the years ahead. Nevertheless, some broad very long-term assessment is of value as a framework within which the Region's aspirations can be tested and fitted. For this purpose the Council are assuming that, by the turn of the century, there will be a total regional population of about 5 million people. This represents an increase of nearly 40 per cent over the mid-1964 figure, and is reasonably in line with present national estimates that the population of Great Britain will increase by 37 per cent between 1965 and 2000 A.D. But even if this total figure seems realistic, there is scope for very wide margins of error in any forecasts of how the population increase may be distributed within the Region. On the assumption that the trends in natural increase and net immigration which the Council have forecast for the 1964–81 period may continue after 1981, the demographic pattern at the year 2000 A.D. might be as shown in Table 35.

Planned migration

348. It has already been pointed out that the Council's estimates of population changes up to 1981 do not take into account the possibility of additional population gains from planned arrangements for the reception of overspill population from the South East or other congested regions. A number of schemes for planned population expansion in the South West are being considered at present. The Government has proposed that, as a contribution to the overspill problems of London, there should be a planned intake of about 75,000 people into Swindon by 1981; this would bring the population of the town to about 200,000 by that date, and the local authorities concerned are now studying the feasibility of expansion on this scale. The Greater London Council are also engaged in discussions with a number of other local authorities in the South West about the possibility of town development schemes in their areas, which would, in the main, be on a smaller scale than the proposed Swindon expansion.

349. In the Council's view, the likelihood, scale and timing of planned overspill schemes in the South West is too uncertain at present for reliable estimates to be made of their effect on the future population of the Region. The Council consider that planned migration to the South West will chiefly be an addition to the forecast level of voluntary migration rather than an alternative to it. Its strategic significance will be referred to in the next chapter.

The Severnside Study

350. The calculations of population growth made above assume the continuation of migration into the South West Region at no greater pace than is occurring at present. No allowance is made, therefore, for the redistribution of national population which is likely to take place if, as present long-term forecasts show, the national population grows by some 20 million by the year 2000 A.D. The Council would expect that a sizeable section of this increase would move outwards from the conurbations as has happened in the past. The Government's review of long-term population trends is not yet completed but the Government has accepted that some part of the population increase will need to be accommodated in new centres, which for reasons of economic and physical planning must be large. With this in mind, the Government has decided to study the feasibility of large-scale development in a number of areas, including Severnside. The Severnside Study, which is to be carried out with the assistance of the local planning authorities, will embrace both sides of the Bristol Channel. *Prima facie*, Severnside is very suitable for expansion, since it is one of the few remaining undeveloped estuarine sites and has great natural potential for growth. The addition, as a result of the Severnside Study, of substantially greater numbers to the Northern sub-region than are envisaged above on the basis of current trends

TABLE 35

Estimated very long-term civilian population

Area	1964 Population '000	1981 Estimated population '000	2000 Estimated population '000
SOUTH WEST	**3,584**	**4,280**	**5,000**
Northern	1,626	1,989	2,500
Central	758	822	1,000
Southern	759	888	1,000
Western	441	481	500

could require a scale of development sharply different in terms of land use and public capital investment from what it is proper to assume at this date.

Changes in age and sex structure, 1964-81

351. An important question for regional planning purposes is how the changes in the total regional population estimated for 1964–81 would affect the balance between the working-age groups and the dependent age groups. The calculation is not easy to make. Some estimate of the effects of natural change on the demographic structure of the Region can be made by projections based on the Registrar General's current assumptions about mortality and fertility rates. It is particularly difficult, however, to forecast the effects of migration, especially since, as already pointed out, there is no information about the total numbers of people who enter or leave the South West, or who move within the Region. Nevertheless, some indication of the possible effects of migration can be obtained by assuming that the net immigration forecast for 1964–81 will be broadly similar in composition to the net immigration last analysed, namely, that between 1951 and 1961. The outcome of the calculations on these lines is shown in Tables 36 and 37. Table 36 shows how the population of 1964 and that estimated for 1981 divide between the three (unequal) age groups of children, persons of working age, and the elderly; Table 37 shows the absolute change in the number of persons of working age.*

352. On the Council's estimates, the proportion of children and elderly persons in the total population of the Region will increase between 1964 and 1981 and the proportion of people in the working-age groups, especially females, will decrease. These ratios are in line with forecast national trends. But there are marked differences within the Region. The age and sex structure of the Northern sub-region, at present very close to the national average, will remain so in 1981, whereas in the Southern and Western sub-regions, and to a lesser extent in the Central sub-region, the relatively high

*The 'Working Age Groups' comprise males aged 15-64 and females aged 15-59. The 'Dependent Age Groups' comprise 'Children' aged 0-14 and Elderly Persons—males 65 and over and females 60 and over. No adjustment to these age groups has been made to correspond to the higher school-leaving age after 1971.

TABLE 36

Estimated age distribution of civilian population, 1964 and 1981

Per cent

Area	Children		Working age		Elderly	
	1964	1981	1964	1981	1964	1981
GREAT BRITAIN	**23·1**	**26·4**	**61·8**	**57·6**	**15·1**	**16·0**
SOUTH WEST	**22·6**	**25·3**	**60·1**	**55·7**	**17·3**	**19·0**
Northern	23·3	26·0	61·3	58·0	15·4	16·0
Central	22·8	25·4	59·4	55·3	17·8	19·3
Southern	21·3	24·2	58·8	52·6	19·9	23·2
Western	21·3	24·6	59·0	52·6	19·7	22·8

TABLE 37

Estimated changes in civilian population within working age groups, 1964-81

Area	1964 Total '000	Change, 1964–81		1981 Total '000
		'000	%	
GREAT BRITAIN	**32,344**	**+1,830**	**+ 5·7**	**34,174**
SOUTH WEST	**2,153**	**+ 230**	**+10·7**	**2,383**
Northern	996	+ 158	+15·9	1,154
Central	450	+ 59	+13·2	509
Southern	447	+ 20	+ 4·6	467
Western	260	− 7	− 2·7	253

proportions of elderly persons in comparison with the national average will become even more pronounced.

353. Changes in the size of the working-age population, and its relationship to the dependent age groups, are of course particularly important when considering the Region's prospects for development. Table 37 shows that the increase in the Region's working-age population between 1964 and 1981, on the basis of the Council's forecasts, is expected to be *proportionately* much greater than in Great Britain. The reason lies entirely in the large proportional increases estimated for the Northern and Central sub-regions (see Figure 21). In contrast, the increase estimated in the Southern sub-region is below the national average: for the Western sub-region—no allowance being made for the effects of existing policies in the Development Area—there is an absolute decrease in people of working age.

354. If these trends operate as calculated, their consequence is to be read in Table 38. For the country as a whole, the number of dependents to be supported by those of working age is due to rise and it can be assumed that increasing productivity will allow the economy to take this feature in its stride. Given a national pattern of social services, much of the cost of supporting dependents, the old more than the young, has become a national load. In 1964, the number of dependents per 1,000 of working age was above the national average in all South West sub-regions, but only slightly so in the Northern sub-region, and the other three sub-regions were all much in the same position as each other (about 700 dependents per 1,000). By 1981, however, on these calculations, the Northern sub-region will become more favourably situated relatively, the Central sub-region will become rather more unfavourably situated, but in the Southern and Western sub-regions the number of dependents will become markedly greater. A distinction should perhaps be drawn between the Southern sub-region, where the elderly include a high proportion of retired newcomers of independent means, and the Western sub-region, where the forecast increase in elderly dependents is due more to the effects of the population age structure.

MANPOWER SUPPLY

355. From trends in population, particularly working-age population, we turn to the numbers in that population who can be expected to make up the available supply of manpower. The question will then be asked whether the expected growth in the number of persons seeking jobs will be matched, on current trends, by growth in the number of jobs available. To some extent the enquiry is circular: an inward migration of persons of working age has been assumed which will only take place if there are employment prospects; activity rates are likewise a function of the demand for manpower as well as of the

Fig. 21 Civilian Population: Future Estimates by Natural, Migrational and Total Changes, 1964-81.

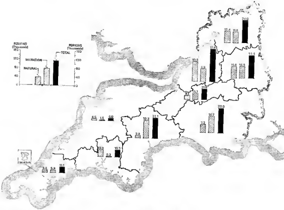


TABLE 38

Estimated number of persons in dependent age groups per 1,000 persons in working-age groups

	GREAT BRITAIN		SOUTH WEST REGION		Northern sub-region		Central sub-region		Southern sub-region		Western sub-region	
	1964	1981	1964	1981	1964	1981	1964	1981	1964	1981	1964	1981
Children	374	458	376	455	381	448	384	462	362	460	362	466
Elderly	243	278	289	341	251	276	300	352	338	441	335	433
Total	817	736	665	796	632	724	684	814	700	901	697	899

TABLE 39

Estimated home population, 15 years and over, 1970*

Thousands

	Males		Females	
	Age 15–64	Age 65 and over	Age 15–59	Age 60 and over
Estimated home population	1,184	229	1,032	459
Change from 1964 of which,	+27·2	+39·8	+13·8	+43·9
due to natural change	− 6·4	+19·8	− 5·2	+18·9
due to migration	+33·6	+19·8	+19·0	+25·0

*South West Region, excluding Poole

potential supply. But the enquiry is not wholly circular, if only because of sub-regional differences, and it is well to check. It is convenient to look separately at the short term, up to 1970, and the long term, up to 1981.

Supply of manpower, 1964-70

356. The Council's population estimates suggest that by 1970 the *home* population of the Region will include 1,393,000 males and 1,491,000 females aged 15 or over. These figures represent an increase on 1964 of 68,200 males and 56,300 females, of whom 27,200 and 13,800 respectively will be of working age. The whole of the latter increase will be due to migrational change.

357. Any estimate of the potential supply of labour in 1970 depends on the age groups of the population and the assumptions made about their activity rates. Table 39 shows that the greater part of the additional population will be over retirement age and it may be safely presumed that very few migrants who come to the Region specifically to enjoy retirement are likely to be attracted into the employment field. On the other hand, it may be assumed that a significant number of the migrants below normal retirement age will come expecting to find employment. The level of activity rates is to some extent dependent on the pressure of demand for labour. Activity rates will rise and unemployment will fall when the pressure of demand is high, thus adding to the labour supply. In the Council's view, current trends indicate a continuation of the slow increase in overall regional activity rates experienced in recent years. On this assumption, the labour supply in the Region in 1970 might amount to 898,000 males and 475,000 females, an increase of 30,000 and 16,000 respectively on the numbers of employees in 1964.

358. There is no detailed information on activity rates of the various age groups of the population in each sub-region, and estimation of sub-regional manpower supply in 1970 is therefore subject to considerable uncertainty. It is important that the exercise should be attempted, however, since one of the main features of the Region's labour market is the differences between the sub-regions.

359. Only in the Northern and Central sub-regions are the numbers of people of working age expected to grow significantly by 1970. In the Southern sub-region, the estimated increase is only a few hundred while in the Western sub-region a sizeable decrease is forecast. A rise in the population over retirement age is expected in all sub-regions. On very crude

TABLE 40

Estimated changes in manpower supply, 1964-70*

Thousands

Area	Employees (in employment and unemployed) 1964			Increase in manpower supply 1964–70			Total manpower supply 1970		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
SOUTH WEST	**868**	**459**	**1,327**	**30**	**16**	**46**	**898**	**475**	**1,373**
Northern	444	233	677	17	10	27	461	243	704
Central	158	84	242	7	3	10	165	67	252
Southern	174	96	270	4	2	6	178	98	276
Western	92	46	138	2	1	3	94	47	141

*South West Region, excluding Poole.

assumptions about activity rates, it is estimated that these forecasts will yield the changes in supply of people available for employment in 1970 which are shown in Table 40.

360. It must be emphasised that the figures in Table 40 are essentially projections of current trends and might be materially different if the pressure of labour demand changed. For example, the total manpower supply in the Western sub-region may prove larger than that forecast in Table 40 if policies for encouraging new jobs in the Development Area lead to fewer people of working age leaving the sub-region.

Supply of manpower, 1964-81

361. In trying to forecast labour availability in the early 1980s the two main fields of uncertainty are the distribution of population between the various age groups and the activity rates which can be applied to the population figures. In the light of the Council's estimates of the future population of the Region and after considering the trends in activity rates for each age group (allowing of course for the drop in activity rates expected to result from the raising of the school-leaving age in 1971), it would appear that the supply of manpower in the Region can be expected to increase by some 125,000–135,000 between 1964 and 1981. This implies a rate of growth significantly below that experienced in the last decade but still well above that expected in the country as a whole. As with the population estimates, this figure discounts the possibility of changes in the labour force due to planned overspill schemes or as a consequence of the Severnside Study.

362. Within the Region, the fastest rate of increase as well as the bulk (about 80 per cent) of the additional workers can be expected in the Northern sub-region. The Central and Southern sub-regions are expected to have small increases but current trends indicate that little change can be expected in the Western sub-region.

THE ECONOMY

363. If the manpower trends give a picture of a Region rapidly expanding in population and labour supply, do the current trends in the economy of the South West show the same result? The question is dealt with in this section.

Agriculture, forestry and fishing

364. It has been shown in Chapter 4 that, on average, the farms in the South West do not differ markedly from those in England and Wales. But within the Region, as in England and Wales, there are significant departures from the average; at one extreme there are the very large arable farms on the chalk downs, and on the other the small farms on difficult land in some parts of the far south-west.

365. The smaller farm is a dominant problem in the Region, as it is in England and Wales, in not providing a living acceptable by modern standards. Recent government measures, designed to tackle the national problem, may benefit the smaller farmers in the South West. These measures include incentives to more co-operation between producers to enable them to share the benefits of scale of enterprise and of specialisation. Small farmers who wish to intensify their production may qualify for capital grants. For some, however, more land is the only solution. The Agriculture Act 1967 provides for payments of annuities or lump sums to small farmers who voluntarily release their land for amalgamation into larger units for whose re-equipment there will be financial help. There is as yet no evidence of the extent to which these incentives may accelerate the present trend of amalgamation of farms in the Region.

366. Hill farming is important in Devon and Cornwall. The costs of land improvement, including essential field drainage, are higher

than in less remote areas. The Agriculture Act 1967, offers higher government contributions towards capital work of improvement and should result in increased productivity in the hill farms of the Region.

367. The Council note with interest the proposal for the establishment of rural development boards to keep under review the special problems of the more difficult hill areas of England and Wales with responsibilities to draw up and implement programmes of development, taking into account the interests of agriculture and forestry as well as tourism and recreation. The Government has not stated which areas it has in mind for the establishment of the first boards, which are likely to be tried on a pilot basis in one or two areas only, at least initially.

368. The amalgamation of farms to give bigger units and their consequent re-equipment; the intensification of farm enterprises, the need to make good the loss of farm labour by mechanisation—all these factors lead to a demand for more capital. It is difficult to quantify this demand, but it seems certain to remain strong in the foreseeable future.

369. The running down of the Region's agricultural labour force, presently at some 3 per cent a year, seems likely to continue. Current trends indicate that the loss of agricultural manpower between 1964 and 1970, excluding the self-employed, may amount to about 12,000–13,000 people, or more than one-fifth of the total number of people at present employed in agriculture and horticulture in the South West. The loss is likely to be a smaller proportion of the present labour force in the Western sub-region than in the other sub-regions.

370. No appreciable change in the relatively small labour forces of the Region's forestry and fishing industries is foreseen for the medium term. The growing demand for timber offers good prospects for the expansion of forestry, dependent primarily on the amount of new land which can be made available for this purpose. The derelict woodlands which abound in all parts of the Region are unlikely to contribute more than a few hundred acres each year to the planting programme, and the main potential for expansion lies in the land which has never carried trees and which, although technically unsuitable for agriculture, could be turned over to forestry without difficulty. Land of this type in the Region totals some quarter of a million acres, but the amount available for forestry is limited by commons rights, National Parks policies and other amenity considerations.

371. The Council do not yet have sufficient information to assess the long-term prospects for the fishing industry in Devon and Cornwall. The demand for the industry's products is likely to continue and much may depend on the extent to which the industry is able to solve its marketing problems.

Mining and quarrying

372. Mining and quarrying is a significant sector in the economy of the South West, particularly in West Cornwall, as the survey of the mineral industries in Chapter 5 has shown. The expanding china clay and ball clay industries are of national as well as regional importance, and are substantial exporters. The industries see no limit to the demand for their products. The output and export of clays could be considerably increased, but amenity considerations impose some limitations on expansion, as do transport problems such as difficulties concerning permission for access roads and adequate port facilities. The industries are well advanced technologically, and their further development is likely to lead to an increased demand for skilled technicians. Tin, too, has a more than regional significance; while the future size of the industry is largely dependent on world price levels, it may be that Cornish tin will recover some of its historic significance. There is every reason to expect a continued growth in demand for most of the Region's minerals which are used in building and road-making—notably the carboniferous and older limestones, granite, and sand and gravel. Coalmining is the only declining mineral activity in the South West.

373. In total, the Region's mineral resources appear to be adequate to sustain an expansion of the mining and quarrying sector. A major problem for the future will be to reconcile the sometimes conflicting claims of, on the one hand, rising demand for the minerals of the South West and, on the other hand, competing developments and the preservation of the Region's amenities and its better quality agricultural land. In the case of the important china clay and ball clay industries, arrangements exist for consultation between the local planning authorities and the industries on proposals for development within the clay fields which might prejudice mineral working. In the Western Mendips, the Wye Valley and on the South Devon coast, the local planning authorities' present policy is to restrict the opening of new limestone quarries to preserve the amenities of these areas. Forecasts of future demand published in 1965 estimated that regional production of sand and gravel will more than double by 1975–80, and such a great expansion will clearly accentuate the amenity and agricultural problems in some of the areas of the workings.

Manufacturing

374. The account in Chapter 6 presents a

favourable record of past expansion by manufacturing industry in the Region over a considerable period. Expansion has not been on a narrow front and few industries have declined. Growth has added to the diversity of industry in the Region and has been in activities which themselves are growing nationally. The movement of industry into the Region has largely been of vigorous elements which have been attracted by its amenities or by the availability of sites allied to the ebullient economies of the Midlands and South East and which have seen the Region as a spring-board for a lively leap forward. The diversity of production in the Region is illustrated in Appendix 26, which lists the larger industrial firms in the South West.

375. For several years from the late 1950s, some important industries in the Region encountered difficulties. The aircraft industry went through a particularly difficult period, and one major concern closed down. Activity in the large railway workshops fell sharply and some other branches of railway engineering were affected. The shipbuilding and ship repairing industry had problems. In some important consumption goods industries, demand seemed uncertain and the rate of employment growth levelled off. The rapid growth in some of the newer projects, for example in the motor body industry at Swindon, began to ease.

376. Despite indications of slower employment growth recently, there has been a steady rate of expansion proposals in industrial building, and it is probable that the Region has now shaken out some of the retarding factors which appeared to be affecting the longer-term prospects of the regional economy in the period roughly from 1961 to 1965. In particular, prospects for the large aircraft and aerospace industry in the South West have now been improved. In broad terms, the production of airframes if the Concord programme proves successful, the broadly based production of aero-engines, and the expansion of helicopter production will lead to a full load on the industry which will have to increase its labour force for some years ahead.

377. The total market for motor cars seems bound to continue to expand, leading to growth of body production at Swindon and to increased opportunities for component and equipment suppliers in the Region. Long-term prospects for the production of commercial vehicles are also good.

378. The Region's engineering complex is becoming steadily more sophisticated: electronics, which is expanding nationally at a very fast rate, is growing relatively in importance in the South West's engineering activities. These considerations point to the inherent expansion potential of engineering in the Region.

379. The Region's consumer goods industries contain a considerable cadre of firms occupying strong positions within their own industries. There is no reason to expect that these industries as a group will not secure their share of national expansion to meet the needs of the growing population at home and abroad.

380. Generally, expansion prospects for industry in much of the Region look sound for some years ahead. Considerable expansion can take place in terms of output and productivity. Expansion of employment, however, will depend a good deal on the way in which the Government applies its control over the creation of new factory capacity. On the one hand, a restrictive policy towards industrial building could slow the rate of growth in manufacturing employment, though to some extent this could channel the Region more strongly towards even higher productivity. On the other, schemes to inject new population into various parts of the Region, notably Severnside, would call for a phased introduction of new industry; such a combination of indigenous manufacturing expansion and new industry could lead to an even more rapid rate of growth than was experienced in the decade 1954–64.

381. This broad assessment can be taken to apply to the Northern and Central sub-regions. In the Southern sub-region, prospects of manufacturing expansion depend considerably on the unresolved problem of the Dockyard at Plymouth. Decisions here could affect the scope for enlargement of the manufacturing sector in this important centre of the south and west of the Region, although Chapter 3 suggests that there may be reserves of labour in the sub-region now which could be drawn into manufacturing industry.

382. In the Western sub-region, the amount of manufacturing is still relatively small, though there are one or two large concerns. Expansion on the basis of existing firms is thus limited. Although the prospects of attracting more industry have been increased by Development Area status, and could be enhanced by a moderate population intake at selected points, current trends indicate that the future growth of manufacturing is likely to depend mainly on a gradual accretion of smaller firms attracted to the area by amenity or government facilities. The sub-region is the most distant from the industrial centres, but persistent government action should continue to increase the manufacturing content in the area. No dramatic change, however, is likely in the sub-region's present marked dependence on agriculture, the holiday trades and other non-manufacturing activities.

The holiday trades

383. Because there are serious gaps in knowledge about the impact of tourism on the regional economy, the Council decided to sponsor an investigation by the University of Exeter of the economics of the holiday trades in Devon and Cornwall—the two counties where the weight of holidaymaking in the Region is concentrated. The results of this and other studies now in hand will provide a basis for decisions about future policy towards tourism and the holiday trades.

384. Nevertheless, the information which does exist, including the valuable studies carried out by the planning departments of some of the counties, makes it possible to venture some preliminary conclusions about the prospects for this part of the regional economy. The holiday trades are faced with a number of problems. There is much uncertainty about their future competitive position in face of the relative cheapness of holidays abroad, and of the subsidies to tourism offered by some overseas countries. The Selective Employment Tax has imposed a new addition to costs. There is need for considerable expenditure to adapt facilities, particularly accommodation, to changing demand. The inadequacies of the road arteries into the Region and problems of traffic congestion on the circulatory roads in the holiday areas are further inhibitions on growth.

385. The future of the holiday trades in the South West is substantially dependent on the general growth of the British economy. But even with a buoyant national economy, the problems enumerated in the previous paragraph will remain. There are signs that the recent yearly increases in holidaymakers' spending are tapering off. If this is so, there is clear need for vigorous action to get the trend moving upward again; otherwise the economic growth prospects for many parts of the Region will not be very high.

Office activities

386. The indications are that employment in the office industries in the country as a whole will continue to increase even with the growing automation of office work. The long-term prospects for office development in the Region will depend at least as much upon the rather uncertain scale of office decentralisation from London as upon national trends in the growth of the office industries. Up to now, the movement of offices into the Region has not had a significant effect on employment growth, even though a number of firms have transferred headquarters departments to towns in the South West, for example the Commercial Union Assurance Co.'s Computer Centre at Exeter, Debenhams (Central Buying) at Taunton, and Eagle Star Insurance at Cheltenham.

387. However, the scale of the movement out of central London seems bound to go on increasing for some time. Experience of the practicability of decentralised operations, together with the growing automation of routine office operations and developments in data transmission, may be expected to encourage rather longer-distance moves in the future. The Region stands to benefit from this trend, since it is the one which most London office workers are known to prefer. In particular, Swindon, which lies less than 80 miles from London and which is planned to receive a large volume of London overspill in future years, seems likely to prove particularly attractive to offices from the South East and this would provide a useful diversification of employment opportunities in the town. The Severn Bridge and the new motorways can be expected to enhance Bristol's status as an office centre, and Exeter, already a sizeable office centre, has potential for future growth.

388. Elsewhere in the Region, prospects for a more rapid growth in the present rather limited opportunities for office-type jobs are not so bright. If present distribution is any guide, the larger establishments, which are more likely to be mobile over long distances, will prefer to settle in the larger towns, particularly in the major office centres, where they can benefit from some of the same external economies, such as specialised services and a stock of suitable labour, which exist in the London area. On these criteria, Plymouth is the obvious town apart from Bristol with the potential to develop as a major office centre, especially in view of the large reserves of female labour in the city. Decentralisation of government offices presents rather different issues, and Devon and Cornwall could well prove attractive in this respect.

MANPOWER DEMAND

389. What do these trends in the main industrial sectors imply for the future demand for manpower in the Region? In general, it is much more dangerous to project trends in regional labour demand for periods of more than about five years ahead than it is to make long-term projections of regional labour supply. Information about the prospects of particular firms is incomplete, and seldom available for more than a few years ahead; moreover, future changes in government policy can have a large and direct impact on the demand for labour. Thus, most of the estimates in this section relate to the period to 1970, though they may be regarded as generally indicative of the main trends in the demand for labour in the Region.

Demand for labour, 1964-70

390. Two years ago, for the purposes of the

National Plan, an Industrial Inquiry was conducted in both public and private sectors of British industry to find out what growth in the gross national product of 25 per cent between 1964 and 1970 would mean for each industry—the effect on the demands for their products, their need for additional capacity to meet that demand, the extent of their need for extra manpower. Since July 1966, the target of 25 per cent growth has been recognised to be unattainable by 1970 and the results of the Industrial Inquiry are therefore no longer applicable for that year. Nevertheless, it should not be assumed that, as a consequence, the demand for labour will be vastly different from what was then forecast. The greater part of the 25 per cent was to have come from increased productivity and only a small part from extra manpower. If output grows more slowly, it is because productivity advances more slowly, not because the demand for labour is less (unless it is deliberately held down, as at the present time, by government policy). Furthermore, the results from the Inquiry are still the best estimates of the *direction* in which the economy is moving, even if the date of arrival is later than was once hoped. In reaching their conclusions for the South West Region in 1970, therefore, the Council have found it useful to ask what the Inquiry rates of growth in particular industries might have meant for the Region, even although they have given greater weight to specific regional factors—in particular, knowledge of the prospects of particular industries and firms in the South West, such as is drawn upon above, and the fact of the rate of growth in employment in the Region in recent years, which has been much faster than the national rate.

391. On this basis, the information available indicates that manpower requirements in the South West may grow by about 51,000 between 1964 and 1970; if recent trends were maintained, this demand would divide between males and females in the ratio of about 2:3. Employment has been increasing markedly faster in the South West than nationally since 1958, and our estimate assumes that this trend will broadly continue. Projections based on the national rates of growth in labour demand derived from the 1965 Industrial Inquiry would have yielded a much smaller increase in regional manpower requirements, of the order of 32,000. Our estimate, therefore, should probably be regarded as the maximum increase which is likely to occur. Table 41 shows this total growth in demand divided into industrial groups.

TABLE 41

Estimated maximum growth of demand for manpower, 1964-70*

Thousands

Industry	Change in demand
Agriculture, mining and quarrying	−13
Manufacturing	+15
Construction	+ 6
Distributive trades	+ 8
Other services	+45
TOTAL	+61

*South West Region, excluding Poole

392. Similar estimates have been made for each of the sub-regions. They suggest that the fastest growth in demand is likely to occur in the Northern end (from a much smaller base) the Western sub-regions. But even in the Southern sub-region, which shows the slowest growth, the rate may be slightly faster than a projection of national rates would indicate.

393. As might be expected in view of the interactions of demand and supply noted at the beginning of this enquiry (paragraph 355), the supply of and demand for labour in 1970, in the Region as a whole and in each of the sub-regions, are not likely to be far out of balance at the maximum level of demand shown in Table 41. If the level of demand were to fall below that implied in Table 41, either there would be surplus labour inviting an influx of new projects not allowed for in the calculations, or the supply of manpower would adjust to demand by lower activity rates and less immigration.

394. The calculations suggest two detailed features of possible note. One is of some pressure of demand for labour in the Western sub-region, implying that emigration might be less than has been assumed. The other is of a heavier demand for females than for males in all sub-regions, implying either the further pushing up of female activity rates or some substitution of male for female labour, for example in office employment. Both observations are very speculative.

Demand for labour, 1964-81

395. It is impossible at this stage to attempt to quantify the likely long-term regional demand for labour. But if our assumption (in paragraph 351) that the regional labour supply will grow considerably more rapidly than the national labour force proves right, any general labour shortages in the South West, if they occur at all, are likely to be much less severe than in many other parts of the country. Furthermore, current trends indicate that, even by 1981, activity rates in the Region will by no means have reached their limit.

17 A Strategy for the Region

396. Regional planning is concerned with decisions to develop the infrastructure of the economy and with the location of employment and population. The aim is the fullest use of the resources available in the different regions of the country. Having examined the trends in population and employment in the South West, the Council sum up in this chapter the prospects for the Region and outline a strategy for the development of the Region's resources. There follow the Council's conclusions, in Chapter 18, on the economic policies necessary to implement the strategy and, in Chapter 19, on the investment required to provide the infrastructure.

The basis of a regional strategy

397. From the outset of the Council's work there have been evident the sharp contrasts between the prosperous and dynamic economy of most of the north and east of the Region and the uncertainties of many parts of the south and west. These contrasts are, in microcosm, those which exist in the economy of the United Kingdom as a whole. The northern and eastern borders of the South West Region abut on the two main regions of the nation's economic growth, namely, the West Midlands and the South East. Inevitably, the latter's prosperity spreads increasingly into these parts of the South West. If these parts alone made up the Region, therefore, a regional plan might simply welcome the prospective influxes of wealth and activity, set out the infrastructure of highways, houses, schools and other public services required to make the development feasible and emphasise the careful land use planning necessary to ensure that it did not trespass upon amenity. In fact, the Region also embraces the great south-western peninsula which, though not having the same intensity of problems as some other parts of the country, nevertheless displays many of the features which have given force to regional policy: in places unemployment, in places obsolescent industries, in places rural depopulation. The declared aim of regional planning is a full and balanced development of the country's economic resources so that each region can make a full contribution to the nation's economic growth, and a regional plan has a special responsibility to be concerned with those parts of the Region where the conditions described obtain.

398. The Council's 'reasonable aspirations' must constitute a consistent strategy for both these main parts of the Region. Taking a long view, the whole of the South West Region cannot fail to occupy a much needed place in the nation's future. The present forecast is that the population of the United Kingdom may increase by some 20 million by the year 2000. An increase in productivity per worker of no more than an average of 2 per cent per annum over the next 30 years could raise the national income by 120 per cent. If Britain's larger and wealthier population is to be accommodated at the standards of life and amenity it will expect and can afford, then a far-sighted planning of the occupation and land use of the South West Region must of necessity be a part of that provision. There are many parts of the South West where planned development could ensure a successful expansion of population and economic activity, beyond the relatively high levels implied in the trends reviewed in the previous chapter; there are certainly other parts where planned development is no less essential if they are to contribute fully, in the way which will be needed, to the life of a growing and predominantly urbanised community.

399. But, while we must always have the next generation in our sights, it is on behalf of the generation now living that the Council are first called upon to construct a regional strategy. For the period of time surveyed in the previous chapter—conveniently, to 1981—the trends

display a difference within the Region even more marked than that depicted in the earlier survey of the current situation: an increasing potential for growth in the north and east; in the south and west, a demand for labour which will meet the supply, but only because young workers will continue to drift away from the area, depressing the rate of population growth and leaving an ageing population behind them. These figures of the future level and structure of the population of the South West derive from current national views about rates of natural change and from the Council's assumption that trends in voluntary migration into and out of the Region will follow broadly the pattern of the past decade. How far can they be looked upon as reliable? What elements are susceptible to variation? If the forecast distribution is undesirable at any point, to what extent can it be changed?

400. The population forecasts for the Region as a whole are reliable only in terms of broad magnitude and will require regular revision as new data become available. Nevertheless, they afford a reasonable basis for current planning. There is no doubt that the Region could support at least five million people by the end of the century. The Council's forecast of an increase in population of nearly 700,000 people by 1981 still leaves the Region's population density by that date only about a quarter that of the South East and less than a fifth that of the North West.

401. Within the Region, the distribution of population is largely governed by built-in characteristics which leave only limited room for variations. On the Council's figures, natural increase accounts for about 47 per cent of the Region's forecast gain of population, and natural changes are determined by the size and structure of the present population. Whatever new assumptions may be made about mortality and fertility rates, the proportionate distribution within the Region of the gains to population from natural increase are likely to remain largely unaffected.

402. In the case of net immigration, there is more uncertainty and possibly more room for manoeuvre, since departures from trends may be brought about both by unforeseen economic changes and by specific national and regional policies. Nevertheless the present character of the Region is a strong force. Migrants seeking employment will continue to be attracted for the most part to the Northern sub-region and, to a lesser extent, the Central sub-region. Migration for retirement will continue in the main into the South Devon, South Dorset and South Cornwall coastal areas. It may well be the case that the estimates of population change in the Bristol and Severnside areas will prove conservative. The Severn Bridge and the associated motorways and the potential industrial growth of Severnside seem likely to increase the rate of economic and population growth materially. Similar considerations apply to the Gloucester-Cheltenham area, to Swindon and to the Poole area. Equally, the very modest immigration forecasts for the western and southern parts of the Region are in line with current economic trends.

403. There is one major move which could be made to disturb these estimates. More than a tenth of the net immigration to the South West over the 1954–64 decade was in consequence of planned town expansion schemes, and a continued planned movement of people from the more congested regions could add materially to the Council's forecast of the future regional population. Proposals for planned overspill which are currently being canvassed would, if all adopted, add many thousands to the population of the South West by 1981. These figures exclude the possibility of major expansion on Severnside; if the Government's feasibility study confirms that there is growth potential on the South West Region's side of the Bristol Channel, major developments could possibly be in hand before 1981.

404. Planned migration of peoples and of the industries to give them employment could become a major factor in the economic development of the South West. So far, schemes within the South West for receiving London overspill have all been linked with towns on the border of the South East Region, while the only proposal from Birmingham has been a small undertaking at Weston-super-Mare. The largest additional scheme currently being discussed is at Swindon. Where young population has been lost and needs to be recovered, however, is in the south and west. The Greater London Council have shown themselves willing to look further west, certainly to North and mid-Devon and possibly to Plymouth and Cornwall. To areas with ageing population structures and limited labour to offer would-be employers, schemes of this kind, not necessarily all from London, would simultaneously bring population of working age and industrial development. But the problems of London and the other conurbations are urgent and the natural disposition of their authorities is to look for the handiest and quickest solutions, which are generally those nearest geographically. If the south and west is to draw development further outwards, it must be by people and authorities in the Region showing themselves ready and eager to put forward competitive alternatives. Thus, and only thus, can the forecast pattern be changed.

The sub-regions

405. The prospect here set out confirms the Council's initial judgment of the character of the Region as being divided roughly into two

halves, each requiring very different types of treatment. The sub-regions into which the Council originally divided up the South West for study purposes, when paired into the Northern and Central sub-regions and the Southern and Western sub-regions respectively, come sufficiently near to constituting these two halves for it to be convenient to outline the Council's strategy for the Region in their terms. Of course, the true boundaries are not nearly so readily identifiable or sharply defined, the prospects differ for each sub-region, and no sub-region is a homogeneous unit.

The Northern and Central sub-regions

406. A firm foundation for growth is already established in the *Northern sub-region*, which is well placed to expand further by reason of its proximity to the main industrial centres of the country and its strategic communications. The Council have joined with the Welsh Economic Planning Council in sponsoring a research study, jointly undertaken by Bath University of Technology and University College, Swansea, into the economic effects of the Severn Bridge and the associated motorways. The Council expect a growing network of connections between the Northern sub-region and South Wales and all the indications are that, provided no new constraints are introduced, the Northern sub-region will continue to forge ahead. The Council foresee natural growth resulting in an increase of nearly one million in the population of the Northern sub-region by the end of the century, but this figure could prove an underestimate if the Government's study of the feasibility of large-scale population growth on Severnside leads to planned expansion on the eastern side of the Bristol Channel.

407. In the Council's view, the first broad objective for this part of the Region should be to ensure that the economic growth which is highly desirable, in the national as well as the regional interest, is not impeded either by an unduly rigorous application of restraints on development or by failure to provide, on the right scale and at the right time, the communications, housing and public services which are the necessary concomitants of economic growth. The second broad objective must be the proper planning of the physical disposition of the future growth of the area so as to avoid both the loss of amenity and the congestion problems which have done damage to many of the other prosperous regions.

408. The Severnside Study is relevant to both these objectives. First, when the Council strongly supported the proposals of the Port of Bristol Authority for the development of a new deep-water liner port on the undeveloped site at Portbury, they viewed this undertaking as a sensible exploitation of the economic opportunities brought to the Region by the Severn Bridge and the M4 and M5 motorways. It was with the greatest regret, therefore, that the Council received the decision of the Minister of Transport against approving the Portbury scheme on the grounds that the case for a third liner port had not so far been made out. The Council have noted that the Port of Bristol Authority have taken up the Minister's invitation to put forward, in collaboration with the National Ports Council, alternative proposals for the development of the Port of Bristol and they are following closely the studies which are being undertaken by the Authority to this end. The Council have also welcomed the research study which is being undertaken by Bristol University into cargo traffic. Most particularly, they have noted the importance which the White Paper on *Transport Policy* (Cmnd. 3057) ascribes to the relationship between the traffic of a port and its possession of a populous hinterland and hence the significance which is to be attached to the findings of the Severnside Study for any further consideration of the development of the Port of Bristol on the scale of Portbury.

409. Secondly, the Council expect the Severnside Study, which is due to be completed in 1968, to provide a starting point for dealing with the physical planning problems which rapid and large-scale economic development will entail. We have already noted the intense traffic problems in Bath, a city striving to preserve its 18th-century beauties in the motor vehicle age, and the study commissioned for dealing with them. The Severnside Study should take into account the physical constraints in the area, and will need to consider the implications of large-scale development for traffic problems and ensure that the amenities of the Cotswolds and the Forest of Dean are not adversely affected. The Council expect the Government to co-operate closely with the local planning authorities, on both sides of the Severn, in the Study.

410. While we are not able to put forward comprehensive proposals for the location and pattern of growth in the Northern sub-region before these various investigations are completed, we must draw attention to the need for adequate physical planning in the area running from the Bristol Channel through Bristol to Bath. Whatever the recommendations of the Severnside Study may be, we have no doubt that the pressure for development in this area will be particularly intense. Consideration ought to be given, either in the context of the Severnside Study or by means of a separate study, to the best way of meeting this pressure. In North Gloucestershire, the local planning authorities are undertaking, in co-operation with the Ministry of Housing and Local Govern-

ment, a land use study directed at meeting existing pressures for development in the Gloucester-Cheltenham area. In the Bristol-Severnside sub-division, the policies of the local authorities concerned are at present concentrated on limiting the peripheral expansion of Bristol and Bath, and there is provision in their plans for three concentrations of development by 1981, at Thornbury (14,000 people) and Yate (35,000) in Gloucestershire, and at Nailsea (20,000) in Somerset. The Council doubt if these policies will be adequate for expansion of the order we foresee for the future without risk to the amenities of the area, congestion in the two cities and widespread encroachment upon the Green Belt. Alternative methods of development should be explored, encompassing the whole area of Bristol, Bath, South Gloucestershire, North Somerset and West Wiltshire, designed to profit from the new motorway system and to build up, by the end of the century, a new complex of settlements of major importance.

411. Any plan for the Region must also have regard to the fact that even in the Northern sub-region there are problem areas, notably the Forest of Dean, where there have been insufficient new employment opportunities in the immediate locality to replace jobs in the now closed coal mines. There are also some parts of the Cotswolds where the effects of rural depopulation may need to be examined further.

412. North Wiltshire lies between the South East Region and Bristol-Severnside and its towns stand to gain from both, probably depending upon how close they lie to the M4 motorway when it is completed. So far, the major development has taken place at Swindon and the Council had opportunity to consider closely the rate of expansion in this, now the third largest town in the Region, as a result of the study by Llewelyn-Davies Weeks and Partners (See footnote to paragraph 15.) The Council had, of necessity, to consider the effects of development at the rate proposed upon neighbouring areas of Wiltshire and Gloucestershire as well as the competing claims for the resources of public investment elsewhere in the Region. The Council support the Government's proposal for the further planned expansion of Swindon under the Town Development Act, yielding an additional 75,000 people by 1981. The Council recognise the desire of the Swindon municipal authorities to improve the economic and social structure of the town and applaud the energy which has been applied to the undertaking. We hope that the results of the local authorities' study will confirm the feasibility of expansion on this scale.

413. Within the last year the six northern planning authorities—Gloucestershire, Gloucester, Bristol, Bath, Wiltshire and Somerset—which previously had worked together in two groups, have established a Joint Advisory Committee for the better co-ordination of their development planning. The Council regard this coming together of the local authorities with statutory responsibilities for physical planning as an essential complement to the Council's own work of advising central government. Relations both formal and informal have been established between the Council and the Committee, and the Council intend to collaborate as closely with the Committee in the work of regional planning as the conditions of their appointment will allow.

414. The *Central sub-region* probably represents the limit—and in some parts lies beyond the limit—of the extent of the direct influence of prosperity in the Northern sub-region and the South East Region upon areas beyond their respective boundaries. The influences of expansion in the Bristol-Severnside sub-division can be expected to make themselves advantageously felt by the towns immediately south and east of Mendip, and as far south as Bridgwater and Taunton, once road communications have been improved. Bridgwater has a well-diversified employment structure at present, but Taunton has the largely service economy of a county town, and a number of individual towns in the Wellington-Westbury sub-division are heavily dependant upon a single enterprise as a major source of employment and income and their immediate fortunes are liable to vary with the fortune of that enterprise. Strung out in line for the most part, however, each is sufficiently near to others for some prospective diversification of employment and activity to exist if the need arises. The problem of the villages in this sub-division will be to provide sufficient accommodation at reasonable cost for the needs of the agricultural labour force, in face of competition from the urban commuter. When the results of the Severnside Study are known, the Council hope, in collaboration with the local authorities concerned, to give closer attention to the prospects of the towns and villages of the Wellington-Westbury sub-division.

415. As the prospect for the Wellington-Westbury sub-division has to be seen mainly as an extension of the growth in the Northern sub-region, so has the prospect in the South East sub-division to be seen initially as related to the growth in the South East Region stemming out of London. The counterpart to the Severnside Study here is the South Hampshire Study* published in July 1966. The consultants were asked to examine the feasibility of accommodating within the area between Southamp-

*Colin Buchanan and Partners in association with Economic Consultants Ltd. *South Hampshire Study—Report on the Feasibility of Major Urban Growth* HMSO 1966.

ton and Portsmouth ('the Corridor') a planned intake of population in addition to the forecast natural growth which would bring the combined increase to 300,000 by 1981 with further additions, planned as well as natural growth, thereafter. In the outcome, the consultants established that such numbers were physically feasible and, indeed, that the area could accommodate a far larger population. They also concluded that *unplanned* immigration into the area, if it continued at the current rate, would by itself account for almost the whole of the specified intake. Developments in the Southampton-Portsmouth area are bound to encourage other development on the western side of the New Forest, in the area of Bournemouth and Poole.

416. How far the ripples of development are likely to spread into the South East sub-division from outside the Region requires further investigation. There has been a fairly steady development in parts of the sub-division over the past decade. Negotiations for receipt of overspill in the Shaftesbury area are proceeding between the Greater London Council and the local authorities concerned. The Government has asked local authorities to examine the possibility of a town development scheme at Poole to accommodate at least 30,000 Londoners by 1981, but at present this scheme seems unlikely to proceed.

417. Much of the sub-division is rural and it includes some of the most attractive tourist areas and resorts of the South West. The need to avoid interfering with agriculture and to encourage tourist activities points to the desirability of concentrating future industrial development at a limited number of places including Poole, the Yeovil area and the Weymouth-Dorchester area. Planned expansion schemes may help some places to provide a sounder population base for the local economy and the Council welcome the studies which some local authorities are undertaking of the possibility of bringing in people from London under such schemes. In particular, the Council suggest that consideration be given by the local authorities concerned to the possibilities of a planned development in the area of Yeovil-Ilchester. Such consideration should include adaptation of the trunk road programme to provide appropriate links between the new development and London, Bristol and Southampton.

The Southern and Western sub-regions

418. The Council are firmly of the view that special measures are needed, not all of which may be popular, if the economic viability of the *Southern and Western sub-regions* is to be established and maintained and if these areas are to serve the community at large in a way which will be expected of them in the future. Much has been made above of the high age structure of the populations in these sub-regions. In so far as that age structure is brought about by the movement into the area of people making homes in retirement, there are gains to the community in spending power and in contributions to social life and the voluntary services which ought not to be overlooked when reckoning the cost to the rates of geriatrics. The net outward movement of young persons is a different matter. No doubt one of the effects of greater educational opportunity coupled with the easy mobility of the present day is that many young people will wish to seek their fortunes in the big cities; but a community to retain its quality needs to possess a wide range of human ability and regularly to replace its own kind.

419. On the trends as earlier set out, agriculture and the holiday trades must clearly constitute staple parts of the economies of these two sub-regions taking them as a whole. But agriculture and the holiday trades are not a sufficient base on which the future economy can be established as a growing concern. Agricultural output may rise but employment and self-employment in agriculture are, and should be, declining. The holiday trades may, and should, seek ways of extending their 'season', but their seasonality as a source of employment is inescapable. People today, and particularly young people, expect as part of their everyday standard of living a range of social and economic provisions—in education and welfare, services and entertainments—which is economically practicable only if communities are of a certain size. There is not the growth potential in these two activities to hold together a sufficient number of such communities. A balance of industry is necessary to bring about stability.

420. How may this balance be brought about? There is no doubt that the problems of the south and west, and the far south west in particular, stem in part from their remoteness from the main population and industrial centres, and the inadequacies of their communications links. It is for this reason that the Council have stressed that an adequate spine road running from Bristol to Penzance is the first planning requirement for the Region. But although improved communications may mitigate the economic problems of the south and west they will not provide the complete answer. Nor, in the Council's estimation, will success be achieved in time through any 'fall out' from developments to the north or east. A population growing in numbers and wealth to the north and east will no doubt benefit the south and west in some degree; in particular, through increased demand for farm and horticultural produce and through extended use of their

holiday facilities. But, as stated earlier, the tide of industrial development is unlikely to come so far. The Council consider that a major effort to stimulate growth is called for.

421. If this view is accepted within the Region, should the objective be comparatively large-scale development at a limited number of places each of which would act as a focal point for a wide catchment area? Or should there be a wide spread of comparatively small developments? Of course, in making provision for the future, it is always wise to allow room for the unexpected: the opportunity which is suddenly made profitable by circumstance; the local enterprise which, whether by good luck or good judgment, anticipated a demand that neither planners nor competitors foresaw. Nevertheless, in the Council's judgment, the need to make the most efficient use of the country's resources points to concentration upon such areas as stand in hope of profiting therefrom. The aim should be to encourage expansion in places where a momentum of growth could be sustained such as would serve the economic and cultural needs of a wide surrounding area. With limited resources, public investment is thereby concentrated at points where its components reinforce each other and migrants can be attracted by specific schemes which provide for their housing and employment.

422. The Council consider that any major effort to stimulate growth must start from Plymouth. Plymouth is the one town in the whole of this half of the Region large enough to stand some comparison with urban centres elsewhere in the country which serve as foci for the economic and social life of the communities around them. It is vital that Plymouth should retain and attract population and enterprise if the whole area is to succeed in doing so. Plymouth's past record, however, is chequered. The population of the city itself has remained almost static for the past half century, and even including the adjacent suburban areas, the rate of population increase has been well below the national average. Employment increased rapidly in the city in the early 1960s with the introduction of new firms when it was temporarily listed as a Development District, but has since increased less rapidly and male employment has actually declined in the last year or so.

423. Plymouth is undoubtedly handicapped in raising the level of its economy by its distance from other main centres—over 200 miles from London and Birmingham—and its inadequate communications links. But it is also vulnerable because of its dependence on the Naval Dockyard at Devonport, which provides some 20 per cent of total employment in the city and a considerably higher proportion of male employment. Employment in the Dockyard is unlikely to increase; the city's concern is that national defence policies may sooner or later result in a cutting down. Plymouth at present has few built-in economic growth alternatives to replace these activities.

424. Nevertheless, Plymouth has inherent potentialities for sound economic growth. Thanks to the Dockyard, there is well-organised technical training and the city's manpower possesses an enviable degree of technical skill. The city has already demonstrated that it is an attractive location for industry despite its remoteness, and the problems arising from this remoteness can, and should, be lessened in the future by the improved communications. The Council regard it as a matter of urgency that more and better use should be made of these qualities.

425. Accordingly, the Council consider that a primary aim of regional economic planning policies for the Plymouth sub-division should be to diversify the employment structure of Plymouth and some of the small towns to the east and west. There is undoubtedly under-employment of the manpower resources in the area, especially among the women, so some new jobs of a suitable kind could be introduced immediately. But the health of the area calls for a reduction in the present relatively high rates of emigration, particularly of the younger people. The aim should be to provide a much more diverse employment structure, based in part on manufacturing activities which have good growth prospects which would cater for the skilled as well as the unskilled. The Dockyard is a repair yard and it can expect to have a longer period of service to the Navy than would a construction yard. It is essential to its capability for accepting repair work that there should be available adequate numbers of employees with a full range of the requisite skills. There is call, therefore, for a clear programme for phasing in new and expanding activities on which Plymouth's economic future is to be founded, with a phasing out of the city's dependence on the Dockyard rather than any violent shift in the employment pattern. Special measures to bring in new workers may be needed initially, even in a community of the size of Plymouth, to give impetus to this process. The study proposed by the Plymouth City Council of the feasibility of a London overspill scheme in the area should have this objective.

426. The Council's recommendations for Plymouth, here and in the chapters following, are aimed to benefit the whole of the far south west. We see growth at Plymouth as part of, not a substitute for, growth in other areas. Consideration should therefore be given to how best the local authorities concerned can co-operate to this end. Cornwall and Devon must look to the development of Plymouth as being for their common advantages. Plymouth,

which historically has looked outwards across the oceans, must turn and look inwards towards the land.

427. Despite the adverse features attached to West Cornwall in the earlier survey of regional trends, the Council are not unhopeful of the sub-division's future. Given a large-scale economic buoyancy at Plymouth, there appears a fair chance that West Cornwall can attract complementary developments which would lift the growth in employment above the slow rate of predicted trends. It contains at least two industries with impressive records in technological development and export sales, and each requires, and offers futures for, a wide range of skills. The Camborne School of Mines and Cornwall Technical College, in the Council's view, are essential complements to these industries in establishing a modern centre of opportunity. Distance, and the costs in time and money of transport, are the prime obstacles to development, and improved facilities can reduce but not remove their incubus. It is therefore to industrial undertakings in which transport costs are a minor element that the sub-division must look for new recruits. Most likely, these will be small plants making products featuring a high degree of 'brain content' or some other embodiment of novel enterprise. The inclusion of West Cornwall in the South-western Development Area is an indication of the Government's awareness of the problems of the area, and the Council recommend that the Government should continue to make every effort to maintain and extend the number of jobs available.

428. A prosperous Plymouth is essential to West Cornwall in offering contacts and complementary opportunities which might otherwise be 200 miles farther east. But West Cornwall also needs its own focal point to which it can look for essential services and the cultural and social amenities which are necessary if the area is to prosper. A triangle of Truro, Camborne-Redruth and Falmouth, with no distance more than 15 miles, readily suggests itself. It has the largest population concentration, is an industrial and educational centre and is well placed geographically and in relation to rail and road services. The biggest disadvantage when it comes to attracting firms is a heritage of inferior housing, particularly since the availability of agreeable housing for key workers is often a major factor in settling a firm's willingness to move: the local authorities will have to be prepared to build for newcomers. The Council recommend that the local authorities concerned put in hand an urgent study of the possibilities for development—of agriculture and tourism as well as industrial development—in the Truro-Camborne-Falmouth triangle and of the measures needed to secure additional population and employment there. The Council have noted that the Cornwall County Council have already started discussions with the Greater London Council about the scope for a planned overspill scheme at Camborne.

429. The Isles of Scilly share many of the problems of West Cornwall but their population is unable to benefit from any centre of industrial development in Cornwall because of their separation from the mainland: the distance from Penzance to St. Mary's is about 35 sea miles. They are therefore almost exclusively dependent upon horticulture and the holiday trades as sources of livelihood. References to both these activities and to the problem of communications are contained in the chapter following, but the Council will need to give closer attention to the economy of the islands at some future date.

430. In the Exeter-Torbay sub-division, Exeter, as an administrative, educational and market centre, and Torbay, as the largest and most successful holiday area in the South West, are reasonably prosperous, with good prospects that they and the neighbouring seaside towns will remain so. There would be benefit, however, from industrial development to the north and east of Exeter as well as at Plymouth. It would enlarge the variety of job opportunities in the vicinity, particularly for young people, compared with the present heavy weighting towards services. It would also provide another focus of employment away from the holiday and retirement areas.

431. Prospects lie in two directions: northwards around the A38 to Taunton, linking with Bristol and the Midlands (and with London via the M4); eastwards around the A30 to Honiton, linking with Southampton and London. This area is the one possible exception to the general expectation that the tide of economic growth originating in the north of the Region and on its eastern borders will not penetrate beyond the immediately adjacent Central sub-region. The Devon planning authority are investigating the feasibility of an overspill reception scheme between Tiverton and the M5/A38 road system. They intend similarly to study Honiton and, in conjunction with Exeter City Council, Exeter and the surrounding area. It is to be hoped that these studies will yield positive results which, for the reasons pressed in paragraph 404, will then be turned quickly into action.

432. The part of the Region with the least favourable prospects for self-sustaining economic growth is the area of North Cornwall, North Devon and West Somerset which has here been identified as the Bodmin-Exmoor sub-division. It embraces Bodmin Moor, Exmoor and a part of Dartmoor as well as the Bristol Channel coast and the country around

Barnstaple and Bideford Bay. The area is heavily dependent on agriculture, where the trend is for employment to contract, and on the seasonal tourist industry, which appears for the most part to be low-income geared and narrowly seasonal. There is very little manufacturing employment to complement and help stabilise these activities, and the scattered settlement pattern means that the prospects of growth on any scale are limited. At the western end of the sub-division, Launceston and Bodmin are 25-30 miles from Plymouth: Cornwall County Council are considering, with the Greater London Council, the possibilities of planned expansion at these two towns. On the northern coast, the one area where there is some concentration of population is the Barnstaple-Bideford area. Its traffic connections are with Exeter and Taunton, 40-50 miles away, however, and a sizeable influx of population would be needed to make the area capable of self-sustaining growth. The local authorities concerned have recognised this situation, some industrial development has already taken place with Development District assistance, and Devon County Council are undertaking a study of the possibility of a planned expansion scheme with the Greater London Council.

433. But even if it proves feasible to develop the Barnstaple-Bideford area as a sizeable growth point, it is conceivable that the priorities for the Region would be better served by concentrating development within the Taunton-Exeter-Honiton triangle referred to in paragraph 430, backed by adequate road works between the northern coast and these centres. Effort in East Cornwall, which would mainly look to Plymouth, and in North Devon and West Somerset looking to Exeter-Taunton, would then be concentrated on the improvement of the agricultural and tourist activities of the area and on ensuring a sufficient level of alternative employment opportunities within travelling distance to meet the needs of the population.

434. The choices here represented are big ones, involving a positive and urgent attitude towards attracting and placing London overspill as well as its siting. On them will turn the shape of the economies of the whole of the south and west. The Council invite their urgent discussion. The Council intend to call upon the local planning authorities and other interests involved together to work out a co-operative undertaking to make the most immediate use in the common interest of the studies now in hand as soon as these are forthcoming and to see what further local effort, besides the direction of public investment funds, is required and how it may best be organised.

18 Regional Economic Policy

435. To have the Region's economy moving in the directions indicated in our regional strategy requires action by those participating in the economic life of the Region, a specific direction to the various components of government policy, and a particular scale and pattern to capital investment, especially public investment. This chapter concentrates on the first two of these; the next chapter deals with the third. For the first two, we choose an industrial classification of subjects and follow the order of Part III.

Agriculture and horticulture

436. Agriculture is one of the Region's main industries and is likely to remain so. With horticulture, it provides jobs for more than 100,000 people and, according to an estimate made by the Council, had in 1965 a gross output worth £225 million. Looking ahead, if the 'Regional Farm' is to make its full contribution to national growth, it will continue to release manpower and achieve a still bigger output with a smaller labour force. This will involve radical changes in farm structure, especially in the far west where many farms are too small to yield an adequate livelihood. The Council therefore support the provisions in the Agriculture Act 1967, for financial incentives for the amalgamation of holdings and for improving the productivity of hill farms.

437. The Council have no data about farm incomes on a county basis but have made approximate estimates of the value of average gross output per full-time farm business for each of the six counties in the Region. According to these estimates, there is currently a disparity in annual gross output per average full-time farm business ranging from £4,700 in Cornwall and £5,400 in Devon to £10,500 in Wiltshire. Our study suggests that, even if 10 per cent of full-time holdings in Devon and Cornwall were to be amalgamated by 1970, and even if gross output were to increase by 2½ per cent to 3 per cent a year between 1965 and 1970, gross output per holding in these two counties will in 1970 still be 20 per cent to 30 per cent below the national average for full-time holdings, as it was in 1965. Over the same period, and on the same assumptions, the gap between the two far western counties and the other four within the Region is likely to widen unless remedial action is taken.

438. The Council are making further studies of the problems of agriculture and horticulture in the South West with particular reference to the age structure of farmers, the age and pay structure of farm workers, and the supply of capital for development. In the meantime we have initiated the preliminary steps described in the two following paragraphs to strengthen the competitiveness of the industry in the two far western counties.

439. In the case of the dairy industry, which is an expanding sector in Devon and Cornwall producing by value two-fifths of total farm output, the Council have recommended to the Minister of Agriculture, Fisheries and Food that he should invite the Milk Marketing Board to augment their low cost production advisory service to milk producers in Devon and Cornwall. The Minister has agreed that implementation of this recommendation will be of material benefit to milk producers in the Region, and is considering with the Milk Marketing Board ways in which the existing co-operation between the Board and the Ministry's National Agricultural Advisory Service may be further developed.

440. In the case of horticulture, an important sector of the 'Regional Farm', the Council have emphasised the importance of keeping abreast of marketing and production trends in France. An economic and technical investigation is being made of recent developments in Brittany and in two other regions of France which are likely to compete in the British market with products like cauliflowers, strawberries, apples and pears. The Council believe that more strenuous efforts are required to stimulate the formation of horticultural marketing groups in the Region, and especially in the far south and west, and to improve grower contacts with mass retail outlets for quality and local speciality products. This stimulus will, we hope, be provided by Part IV of the Agriculture Act 1967.

441. Although the horticultural industry in the far south and west has certain advantages arising from both climate and expertise, it suffers from the severe handicap of remoteness from its markets. This reinforces the Council's case for a spine road through to Penzance. Growers in the Scilly Isles are vitally dependent on their link with the mainland and on inter-island transport and we are concerned at suggestions that these services may be reduced.

442. The Council foresee that agriculture and horticulture in the South West will become increasingly dependent on special skills. We therefore welcome the formation of the Agricultural Training Board and have asked the Board to consider the Region's training needs, especially in predominantly rural areas.

443. The Council have noted that farmers and growers in Cornwall and Devon, and in other parts of the Region where holdings are small, derive a significant part of their income from catering for tourists. We believe, however, that they have a bigger and as yet largely unrealised opportunity in developing the tourist attractions of the South West and so contributing to their own prosperity and that of the Region. There is a need for farm business advice geared to the requirements of tourism, and scope for more catering courses for farmers and their families. We believe also that there are good commercial prospects for regional speciality foods. We shall pursue these matters further when the research team at Exeter University have completed the study sponsored by the Council into the holiday industry.

Manufacturing

444. Industrial development depends for the most part not on actions of government but on individual enterprises privately owned and managed, their ability to attract and direct staff, their initiative and capacity to innovate, their energy and drive. The South West as a whole has a well-diversified manufacturing sector, with a good share of expanding industries and comparatively few of the traditional industries with poor growth prospects. In all this, though the sector is proportionately smaller than in the rest of Great Britain, the Region is well set up for future growth. Furthermore, the Region is a good one for management and labour to live, work and relax in. Industrial sites are generally available. Water and power can be supplied. The Region has an excellent record of industrial peace; during the three years 1963–65 the average number of days lost due to industrial disputes was 48 per thousand employees, compared with 100 days lost per thousand employees in the United Kingdom.

445. The big questions affecting development are labour supply, particularly skilled labour, and the distances which materials and finished products, and the managements which buy and sell them, have to travel. In the north of the Region, there is a sizeable stock of all types and grades of skill, although there may be keen competition for it; the sub-region is close to the centre of British industrial life and communications are improving all the time. In the Central sub-region, ease of access to the main trunk routes differs from town to town, but they share the common feature of small size, often with considerable dependence on the fortunes of a single industry and with a limited range of specialised skills. In the south and west, length of communications and distance from markets is the prime handicap; also, with the major exception of Plymouth, the range of skilled labour is liable to be thin. The conclusion is not that enterprises will always prefer to expand in the easier north if allowed to do so, but that there must generally be some rather special reasons for new enterprises getting established further south.

446. Distribution of industry policy is the effort by government to counter the pulls of these powerful and independent economic forces, principally by the two-pronged operation of subsidising new capital expenditure in manufacturing industry in the Development Areas and of withholding permission to develop in places where expansion would lead to excessive pressure on resources. The Council's attitude to this policy is necessarily ambivalent. In pursuing the reasonable aspirations for the Region, we are inevitably reluctant to see developments go to other regions which, given freedom of choice and the scales unweighted, would have settled in the South West. At the same time, we wish to have the advantage which these policies can give to the points in the South West where centres of growth are needed and can, with this kind of effort, be established.

447. The cause of the South West is strongest where it coincides with the *national* economic interest. In issues over the siting of industrial development, the Council mean to insist that the national interest should not be subjugated to rival regional pressures. Correspondingly, our objectives for the areas of the South West Region which are in need of support are to produce an outcome which we believe is in the interests of people outside as well as inside the Region. Our policy is not to pursue industrialisation for its own sake. It is to establish and maintain sufficient industrial and other activity that, with an efficient agriculture and an enterprising holiday industry, stable communities may be established there and be self-sustaining.

448. By stable communities we mean populations which are large enough to support the range of employment opportunities, welfare services, sports and entertainment facilities, etc., that have become a part of the contemporary standard of living, and which are in practicable reach of towns where these facilities can be, and are, provided. In particular, they must be large enough to offer good prospects for the young people growing up in such communities so that they will continually attract and retain sufficient numbers in skill and talent that they may go on replacing their own kind.

449. The Council have given careful consideration to the relationships between the Government's industrial development policy and the regional strategy advanced in the previous chapter, having regard to the principles stated above. Two questions are involved: the advantages and benefits which accrue to places having Development Area status, and the boundaries of the Area in the South West so designated.

450. The advantages of Development Area status stem first from positive inducements which are intended to make them more attractive to industry; the Board of Trade has power to make building grants and general purpose loans and grants, and to build government factories for rental or purchase for projects providing new and additional employment in the Development Areas; expenditure on new plant and machinery in the manufacturing, mining and quarrying and construction industries currently attracts 45 per cent investment grants in Development Areas, compared with 25 per cent elsewhere; and the Ministry of Housing and Local Government can make grants for the clearance of derelict land and the provision of basic services in these Areas. Secondly, the obligation to produce an industrial development certificate (idc) from the Board of Trade when applying for planning permission for a development resulting in more than 5,000 sq. ft. of industrial floor space (3,000 sq. ft. in the South East and West Midlands) is operated to the advantage of the Development Areas. Applications for idc's are treated individually, but it is the Board's responsibility to grant or withhold certificates in the interests of distribution of industry policy. Development Areas get first priority and the provision of industry for overspill reception areas second. Industry for overspill areas is expected to come mainly from the conurbations which have made the overspill arrangements with the reception areas.

451. Unlike the previous Development Districts whose selection depended solely on the level of actual and prospective unemployment, the Development Areas defined in January 1966 were chosen 'with reference to the Government's wider regional policies' and taking account of 'all relevant economic circumstances'. Particular reference was made to population change, including migration, and employment trends as well as the level of unemployment.* On these criteria, the Government concluded that initially there should be five broad Development Areas in Great Britain of which the South-western Development Area was defined as:

'the employment exchange areas in Cornwall (excluding Devonport, Saltash and Gunnislake but including Launceston and Bude), and the North Devonshire employment exchange areas of Bideford, Barnstaple and Ilfracombe'.

452. The previous chapter declared that the strategy for the Southern and Western subregions must begin with Plymouth as the one town in this part of the Region large enough to stand comparison with urban centres elsewhere in the country which provide a focal point for self-sustaining economic growth in the areas around them. The Council have considered the implications of this proposition for industrial policy. We have concluded that it is a logical consequence of our analysis, and so consistent with the Government's reference to wider regional policies, that Plymouth and its surrounding area—the Plymouth Area subdivision (except for the Kingsbridge employment exchange area much of which is designated as an Area of Outstanding Natural Beauty)—should be included in the South-western Development Area.

453. We recognise, of course, that government industrial development policy is not nearly as rigid as it is sometimes represented. The Government has stated that, subject to the needs of the Development Areas, applications for idc's for Plymouth will be considered sympathetically. Nevertheless, even if there were no more to Development Area status than the ease of getting idc's, it would still be important for the recognition of Plymouth as the growth centre necessary to the south and west. Plymouth can offer opportunities to sizeable new developments which no parts of the present South-western Development Area can offer. Yet to any private enterprise planning an expansion, Development Area status is an invitation to investigate sites, whereas the lack of it—and the consequent absence of financial inducements—may be a deterrent. It matters to the Region that Plymouth should receive the same consideration as the major growth centres of the other problem areas in the country.

454. But there are other points to Development Area status besides idc's. First and foremost

*Investment Incentives (Cmnd. 2874) HMSO 1966.

are the financial incentives. As noted in paragraph 450, the investment allowances on plant and machinery in the manufacturing and extractive industries are much more generous and there may be grants and concessions for buildings and works in addition. There are also the various occasions when the Government, wishing to favour some areas in the interests of regional policy and looking for boundaries, chooses those of the Development Areas as at least pressure-resistant, if not politically fire-proof. The siting of some dispersed government offices is one example; the six-months' postponement of new public works projects in 1965 is another. These points make the argument for the inclusion of Plymouth in the South-western Development Area all the stronger.

455. The Council have considered the possible effects of Development Area status for Plymouth on the prospects of the present Area. Granted that the whole Area stands to gain by making Plymouth its growth centre, will there not also be some heightened competition within it? Broadly, one may expect Plymouth and the smaller towns to attract different sizes and kinds of development and that the influence of the Board of Trade in the granting of idc's, the promotion of factories, etc., would be exerted to that end. For the larger developments, as implied above, there will be no competition. Only Plymouth is capable of accepting such; West Cornwall—together with East Cornwall and South Devon in the Plymouth Area sub-division—stands to benefit from complementary activities and sub-contracting. For the smaller developments there could be greater competition. Undertakings which would have chosen West Cornwall for its Development Area benefits may press for Plymouth with the benefits equalised. North Devon, because of distance and the physical obstacle of Dartmoor, has less to gain from growth at Plymouth than have other parts of the Development Area and may find its eastward position less of a competitive advantage against Plymouth than against West Cornwall.

456. In Chapter 17 we recommended that a special study be undertaken of the Truro-Camborne-Falmouth triangle with the object of determining its potential. Arising out of this study we should expect the Government to intensify its efforts to induce suitable firms to set up establishments in West Cornwall. We do not suggest that concentration on the triangle should rule out other locations: West Cornwall is sufficiently compact for benefit in one part to benefit the whole area. Regarding North Cornwall and North Devon, on the other hand, we have already said that we see prospects for self-supporting growth on any scale only in the Barnstaple-Bideford area. The extent depends upon the size of the growth in population and upon the degree to which communications are improved. If the local authorities' plans for a substantial population intake in that area mature, it will be necessary to introduce industry on a scale sufficient for the new level of population and to improve the road link with the M5/A38. If the intake is not physically feasible or if it is ruled out by the capital cost or any other reason, then a concentration of public investment is still the most likely means of promoting local or immigrant industrial enterprise since, in these circumstances, it is bound to be much smaller. Similarly, if developments are planned at Bodmin and Launceston, possibly on a smaller scale, following the discussions which the local planning authority have initiated with the Greater London Council, an essential part of the schemes will be the introduction of an adequate level of new industry.

457. The Plymouth Area sub-division embraces the employment exchange areas of Liskeard-Looe, Gunnislake, Plymouth-Devonport-Saltash, Tavistock, Plympton and Kingsbridge. With these, except for Kingsbridge, in the South-western Development Area, and the Bideford, Barnstaple and Ilfracombe employment exchange areas already included to the north, it would be illogical not to include also the Okehampton employment exchange area which lies between.

458. The Board of Trade's regional office at Bristol has local responsibility for implementing the Government's distribution of industry policies in this Region. The distance of Bristol from the South-western Development Area cannot facilitate the task of the regional office in seeking to encourage employers to locate their new factories in the far south west, and we would accordingly see advantages in the establishmentof a Board of Trade sub-regional office in this part of the Region—either at Plymouth or Exeter. We recommend that the Government should investigate this possibility.

459. Reference has been made in the previous chapter to the importance of overspill reception to the population of the south and west. In the South-western Development Area, the possibility of an overspill scheme at Barnstaple-Bideford is being examined by the Devon County Council (paragraph 431) and the Cornwall County Council have initiated discussions with the Greater London Council about the scope for town development schemes at Camborne (paragraph 428), Bodmin and Launceston (paragraph 432). The prospects for self-supporting growth in the (enlarged) Development Area, spreading from Plymouth, are bound to be enhanced if the introduction of new population and new industrial development under such schemes proves possible.

460. Outside the Development Area, we have

noted the possibility of London overspill schemes at Swindon (paragraph 412), in the Shaftesbury area (paragraph 416) and near Tiverton on the Exeter-Taunton routes (paragraph 431). We have also noted the local planning authorities' intention to study the feasibility of similar development at Honiton and at Exeter and the surrounding area (paragraph 431). The first two areas are at or near the borders of the South East Region. The others are on the M5/A38 route from the West Midlands (and, via the M4, from London) or on the A303/A30 route from London. All of them, therefore, have good prospects of attracting industry provided the decisions are made soon enough to meet Greater London's needs and there should be no difficulties about idc's. As noted in paragraph 450, the provision of industry for overspill reception areas ranks second only to the Development Areas in the granting of idc's.

461. For the rest of the Region outside the Development Area, industrial distribution policy should be directed to ensuring that the Region can make its proper contribution to national economic growth. The Council see a strong case for distinguishing between the more congested regions like the West Midlands and the South East on the one hand and regions such as the South West on the other hand which have room to grow. Having established an up-to-date motorway system in the north and east of the Region, the national economy cannot afford to waste the opportunities which have been created. The Council regard the Severnside Study as a preliminary to deciding *where* development should take place, not *whether* it should take place: they take the latter to be self-evident.

462. In other parts of the Region where there is potential for expansion on a smaller scale, industrial development policy should be directed to encouraging, not restraining, the efforts of local authorities and existing firms to achieve the expansion which is feasible and desirable. As has been emphasised earlier, a feature of the Region is its many small towns which are the market and service centres for the rural life around them and which help to provide the variety of employment which a modern population demands—and without which it will move away. It is important for the economic life of the whole Region that these centres should be maintained and encouraged to develop. If a firm therein seeks to expand it is because, in contrast to an uneasy planting of new enterprise, it has already proved that it has roots and energy to grow. But for such firms, there would be many more problem areas in the Region, and they should be encouraged to grow where they are. At the same time, the door should be open for new enterprises in these towns which would make them less dependent upon the fortunes of a particular market or undertaking.

463. One of the economic disadvantages of small towns and of areas with a comparatively small industrial population is the limited range within which training can be offered and experience gained by persons with a potential of skill. The situation is particularly pertinent to the new programmes of industrial training now being embarked upon throughout the country. Some industrial training boards are already promoting schemes of group training which are not necessarily confined to firms within a single industry. It is important that areas covered by such schemes should embrace small towns which would have difficulty in raising an adequate 'quorum' for group training on their own. The Council recommend that industrial training boards should give close attention to the needs of such towns. The Council also recommend that more use be made of the rural industries services which are available to small businesses (normally those employing not more than 20 skilled workers) in the rural areas and country towns of up to 10,000 population. They provide, through the Rural Industries Bureau, a comprehensive service of advice and instruction, and, through the Rural Industries Loan Funds, credit facilities for workshops, equipment and working capital. The public image of these services is too often associated with traditional country craft industries, whereas their major work is now with a wide variety of producer and viable servicing industries, particularly those willing and able to develop their employing potential or to contribute directly, or indirectly, to exports.

464. It has been pointed out earlier that industry in the South West includes a wide range of advanced technology, and it is essential to encourage this element of the regional economy. In this connection, the future of the regional aircraft and aerospace industry is particularly important. The South West has, in the Bristol area and Yeovil, one of the country's major manufacturing complexes in the aerospace and guided weapons industry involving a great deal of advanced technology, not only in aerodynamics and engines but in many other varied disciplines. As well as providing a significant proportion of manufacturing employment in the Region, the influences of the industry's advanced techniques spread widely to the benefit of other industrial activities in the South West. The Council urge the Government that, whatever the future of the country's aircraft industry as a whole may be, the capacity, skill and technological expertise which are currently represented in these regional aircraft and aerospace activities should not be lost to the Region.

465. While these modern science-based industries currently provide a reasonable proportion of the private research establishments of the country, the South West has few of the national research centres and industry research associations; these are mostly in the South East Region, or in the area where the industry concerned is concentrated. As far as the direct services given by these establishments are concerned, their siting may be of no importance but, in areas which are otherwise short of such occupations, these research centres can be of great value by attracting young scientists and technologists and providing a stimulus to local centres of advanced education. The Council hope that the Government will give full weight to the advantages which the South West can offer whenever the establishment of new nationally supported research centres is being considered.

The holiday trades

466. As national income rises and with it the average standard of living, holiday expenditure can be expected to increase more than proportionately, not only by way of annual holidays but also through the taking of second holidays, long week-ends, etc. At the same time, the numbers who can afford to take their summer holidays abroad will grow. The future of the holiday trades in the Region depends upon how those concerned react to these divergent trends. Up till now, the former has probably been the more powerful in that it has brought steadily increasing numbers of holidaymakers to the South West. The latter has shown itself, however, in that the trend in the average income per head of the holidaymakers, and the level of their average expenditure, has probably been downwards except at a few select resorts: the expansion of the tourist coach trade and the spread of caravan sites are symptomatic.

467. More will be known of the holiday trades when the various research studies referred to in Chapter 7 are completed. In the long run, however, it is certain that, as far as the single summer holiday trade is concerned, the trend to holidays abroad will prevail; already there are signs of the number of mid-summer holidaymakers levelling off. For the increasingly affluent mass at the peak of the holiday season, the South West will be competing with the attractions of foreign resorts; neither is it likely that the inflow of foreign tourists will compensate in numbers. Thus, the future of the South West's holiday industry lies in making the most of the effects of affluence in increasing the numbers able and eager to take second holidays and long week-ends, etc. For these, the length of time not wasted on travel is the first factor: hence the importance of speed of access, by air as well as by road and rail. The second factor is the amenities which are available on arrival, a range which is not met just by sun and sand, but must cater for all tastes and all weathers. On land, a big effort to develop facilities for the enjoyment of Dartmoor and Exmoor National Parks is called for; on the sea, increased opportunities for sailing and facilities for keeping boats; for the foreign visitor, probably a different pattern with an emphasis, if financially practicable, on festivals. The local authorities are giving increasing attention to these questions and the Council intend to return to them when the research studies are published. The Council welcome the efforts of the South West Travel Association to unify tourist publicity in the area which it covers. We see considerable benefits from advertising the holiday facilities of the South West in terms of the Region as a whole, directed to the types of visitor the South West needs to attract.

468. The arguments used by the Government in defence of the Selective Employment Tax as a deliberate device for levying on services make difficult any intercession by the Council specifically on behalf of the hotel and catering industries. There is a case, however, for seeking relief for employers from paying the tax in respect of elderly persons and part-time workers who, in the South West Region, are an abnormally large proportion of the population and who, incidentally, are an important element in hotel and catering employment.

Office activities

469. Further growth of offices in the South West must be an important element in the economic development of the Region, particularly in providing suitable jobs for women at present outside the labour force. Taking the Region as a whole, the outlook for employment growth in this sector is healthy, the more so if office controls are maintained in the more congested areas of the country. Unfortunately, growth is likely to be least rapid in Devon and Cornwall where it is most needed, in spite of the reserves of female labour *and* the willingness of staff to move to the area. Employers considering decentralisation from London need to be persuaded that the geographical position of this area is not an obstacle to successful operation but an aid to satisfactory manning.

470. The two main disadvantages of the far south and west at present are remoteness and the lack of the external economies provided by a major office centre. The first will become less important with the growth of automation in offices and developments in telecommunications; the answer to the second lies in the development of Plymouth as an office centre to which other parts of the area also requiring more office employment can then be attached. To this end, the Council recommend that the Government should pay serious attention to

the suitability of Plymouth in considering the locations for its decentralised establishments.

471. Notwithstanding the needs of the south and west, some movement of offices into other parts of the Region may be desirable on both national and local grounds. In particular, Bristol as the fastest growing of the provincial office centres may well have a major role in the future as a 'counter-magnet' to London for office developments; Swindon could also benefit, through a diversification of job opportunities, from some increase in office employment.

19 Investment Requirements

PART V
THE REGION IN THE FUTURE
(cont'd.)

472. Growth of the regional economy will carry with it a demand for a high level of investment, both public and private. In this chapter we consider the investment requirements for developing the infrastructure which will be needed if the Council's strategy for the Region is to be realised; and look briefly at the implications for the construction industries.

473. We concern ourselves here with communications, housing, energy and water. These are not the only fields where public investment must be directed, but, in the context of our regional strategy, they present the more immediate problems. The Council have not overlooked the fact that more and better schools, hospitals, town centres and so on will be needed to cater for the growing population of the Region, as well as to overcome present deficiencies. It will be a continuing task for the Council to watch that investment in these parts of the regional infrastructure matches the development needs of the South West.

Communications

Ports

474. Our strategy will call for planned investment in the Region's ports, an integral part of the regional infrastructure.

475. There can be no question that investment in the Port of Bristol will be necessary. Chapter 9 has referred to the Port of Bristol Authority's imaginative scheme for a new dock system at Portbury. The Council saw the combination of the Portbury development and a spine road from Bristol to the far south west as having the most immediate effects on economic growth and development throughout the Region as a whole. Following the Government's rejection of the Portbury scheme, the Port of Bristol Authority, as already noted, are now investigating alternative, more modest, means of developing the Port of Bristol. The Council have noted the emphasis of the National Ports Council on the need for the Bristol port system to handle larger ships than Avonmouth is capable of handling, the alternative being 'the slow strangulation of this vigorous, bustling and enterprising port'. We see port development in the Upper Bristol Channel, and in particular at the Port of Bristol, as vital to the economy of the Region to counter the eastwards pull of European trade and European ports, and we will continue to urge upon the Government the importance of port investment in this area.

476. The Council have also noted with interest current proposals for developing Portland Harbour as a major deep-water commercial port. If feasible, a project of this kind might have important advantages for the economy of the south-east of the Region and the Council will keep closely in touch with developments.

477. There are many smaller ports in the Region which have shown their capacity to serve the specialist needs of their hinterlands. The Council will be reviewing in due course the adequacy of the facilities at these smaller ports in relation to regional development plans. It seems unlikely that the decline in the coastal shipping trade of these ports noted in Chapter 9 will be reversed in the near future. Nevertheless, more specialised forms of coastal shipping are likely to grow, for example with the development of heavy-lift ships for the carriage of abnormal loads, and hovercraft might increase the competitiveness of the coastal carriage of freight, and perhaps passengers too.

478. Outside the Region, further development at the Port of Southampton could have implications for the infrastructure of the South West. The National Ports Council's Interim Plan, while recognising that consideration of major long-term developments at Southampton would need to be postponed until the Government had taken a decision about future development in the Southampton area, recommended some immediate expansion of facilities at that port. The Government has now authorised the construction of an additional container berth, and is considering proposals for further berths. Suitable port facilities at Southampton might be as important for the south-east of our Region, and perhaps for the far south and west, as the facilities on the reduced scale now implied for the Port of Bristol. We have had this possibility

in mind when reviewing the road programme for the Region (see below), but a decision for any major port expansion at Southampton would call for a reappraisal of the priorities for the Region's road links with that area.

Roads

479. It is clear from Chapter 9 that the road system over much of the Region is quite unsuited to the needs of a modern economy. In particular, the inadequecies of most of the length of the A38/A30 Tewkesbury-Plymouth-Penzance route, the spine road of the Region, are plain to see. The more road systems are improved elsewhere in the country, the more heavily do the costly and time-consuming hauls out of the South West bear on the Region's competitiveness.

480. The Government's motorways programme, due for completion in the early 1970s, and its programme of large trunk road improvements due to start in the period up to 1970, are shown in Figure 22. The Ministry of Transport has recently announced the formation of a 'preparation pool' for trunk road schemes after 1970. Under this arrangement, the preparation of a further ten large schemes in the Region is being put in hand, to be available for consideration when the programme for the early 1970s comes to be phased; the pool will be added to later in 1967.

481. The current road programmes will give some relief to the Region's trunk road system, but much will remain to be done even when the schemes in these programmes and in the present preparation pool have been completed.

482. By the end of 1871, the M5 will extend from the Midlands through Gloucestershire and across the Avon to Edithmead in Somerset—the north-easterly end of the regional spine road. Once the long stretch of motorway between Tormarton, on the eastern boundary of Gloucestershire, and Maidenhead has been built, the M4 with the Severn Bridge will relieve A4 and provide much improved communications to London and to South Wales. Thus, by the early 1970s M4 and M5 together will provide, via the junction of these two motorways at Almondsbury north of Bristol, first-class communications from the northern part of the Region to much of the rest of Britain. It is vital, however, that replacement or improvement of the spine road southwards from Edithmead should also be provided without delay. The Ministry has accepted in principle the need to replace the present A38 by a new high-standard road southwards from Edithmead to just south of Exeter, a length of about 56 miles. But, apart from the Cullompton by-pass, construction of which has just started, the Ministry does not envisage further work on this new length of road, which would cost some £50 million, before 1973 or 1974.

483. The Ministry also accepts in principle that A38 between south of Exeter and Plymouth must be improved to dual-carriageway standards, with by-passes of towns as necessary, but only some 13 miles of this 36 miles length of road are due for modernisation under the programme up to 1970. The estimated cost of improving the remaining 23 miles is about £13 million. The extension of M5 to Edithmead by the end of 1971 will make even worse the already over-loaded A38 to the south end the present serious congestion, particularly near Taunton and Exeter, will be accentuated. The replacement or improvement of the whole length of the A38 between Edithmead and Plymouth is thus of primary importance to the Region. Improvements along the spine route west of Plymouth to Penzance are also necessary. In recent years substantial improvements have been made between the Tamar Bridge, Liskeard and Dobwalls (junction with A390) and a by-pass of Liskeard is in the Ministry's current programme and due to start in 1969–70. No large-scale improvement schemes west of Bodmin have, however, yet been included in the Ministry's programme. The new preparation pool will contain four schemes totalling about 10 miles on the A38 between Exeter and Plymouth (Haldon Hill, Chudleigh by-pass, Blue Linhay Hill and Ivybridge by-pass) and two schemes totalling about five miles on the A30 west of Bodmin (Camborne by-pass, Roseworthy diversion).

484. Although A4 will be relieved by M4, heavy flows will still remain, particularly on the length in Somerset between Bath and Bristol. The Keynsham by-pass has recently been completed but improvements or by-passes to the east of this in Saltford, Bath and Batheaston are urgently required. (A Batheaston by-pass is included in the preparation pool.)

485. The direct trunk route to London from the traffic focal point of the south-westerly part of the Region, Exeter, is via A30 and A303 and, apart from the recently opened Honiton by-pass, is almost wholly unimproved. Although a route to London via M5 (with its south-westerly extension mentioned above) and M4 will be only some 25 miles further from Exeter than via A30/A303 and some traffic will transfer to this route, the effect of the future M3 (London-Basingstoke motorway which will connect directly with the A30/A303 route) will encourage an opposite movement. The A30/A303 clearly requires modernising to dual carriageway standards as soon as practicable; but the only large scheme so far programmed in the Region is the Amesbury by-pass in Wiltshire which is expected to start this year. This route and the M4 will also, together with link roads around west and south London, be needed

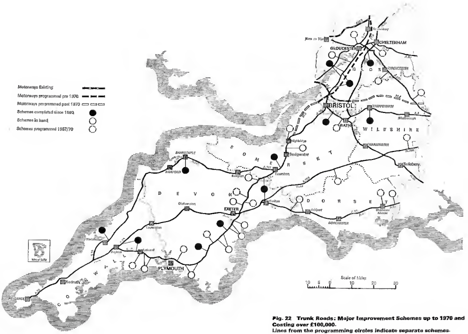


Fig. 22 Trunk Roads: Major Improvement Schemes up to 1970 and Costing over £100,000.
Lines from the programming circles indicate separate schemes.

for access from the Region to the Channel Tunnel, due for completion about the mid-1970s.

488. Although improved access to Cornwall is provided by the Tamar Bridge and the A38 widenings will help, these still more, these latter are not yet all programmed. In any event, the improvement of the more traditional route from Exeter (A30 via Okehampton, Launceston and Bodmin) is also needed, especially as the present road in Devon is of very inferior standard for much of its length. Large-scale improvement, with some by-passes, will ultimately be required and the most urgent needs lie between Exeter and Launceston. No large schemes have yet been carried out or programmed on this route in Devon and only one in Cornwall.

487. The south coast trunk road A35/A31 (Honiton-Axminster-Dorchester-Wimborne) is heavily trafficked and largely unimproved, with bottlenecks at towns through which it passes, only one of which (Wimborne) is programmed for relief. Dual carriageways and by-passes of towns are required as soon as possible. We have noted in Chapter 17 the South East sub-division's need for good communications with the north of the Region.

488. In general, the North Cornwall and North Devon trunk road (A39/A361/A358) is less heavily trafficked except in the Barnstaple-Bideford area and near Taunton. Relief roads in or near these towns are already required, as well as at other smaller towns where physical conditions are particularly bad. Chapter 17 suggests that the economic future of the Bodmin-Exmoor sub-division lies either in the establishment of a growth point in the Barnstaple-Bideford area, supported by a substantial influx of population, or in a reliance on the shared benefits of a comparable development between Taunton and Exeter. These alternatives would lead to more traffic on one or other of the roads (A361 or A361/373) linking Bideford and Barnstaple with the M5/A38 and require improvements thereto.

489. In the north-eastern part of the Region, although the completion of the M4 and M5 will provide for north/south and east/west long-distance through traffic and will relieve certain existing trunk roads, a very considerable improvement programme is still necessary. Schemes programmed are the Amesbury by-pass A303 (for 1967–68), the Over by-pass A40 (1967–68), the Golden Valley by-pass A40 (1967–68), the Cirencester by-pass A417 (1969–70) and the Common Head and Covingham Farm diversion on A419 (1968–69). The development of Swindon will add to the importance of A419 and will accelerate the need for by-passes at Stratton St. Margaret and Cricklade. On A303, schemes prepared for by-passing Wylye and Mere have yet to find a place in the programme. The Over by-pass on A40 should be extended to join the Barnwood by-pass and the latter should be adequately linked to Brockworth roundabout by an improvement to A417. (The Over by-pass extension and the link to Brockworth have now been included in the preparation pool.) Further east on A40, Andoversford and Northleach will require relief despite the draw-off to M4 which will take place. In Wiltshire, the Salisbury-Warminster road (A36) is badly in need of improvement but so far it has not proved possible to include any large scheme in the programme.

490. Figure 23 shows the extent to which the Ministry of Transport estimates that the trunk road system is likely to be overloaded in 1970, allowing for the improvements which will have been made by that date and taking account of the probable increase in traffic. Overload is the percentage by which the traffic on an average August day will exceed the free-flow design capacity of a road having reasonably satisfactory alignment and lane width: it does not allow for the sub-standard conditions which apply on so many of the trunk roads in the Region. Thus, Figure 23 brings out clearly the extent of the improvement work still needing to be done after 1970 in addition to that so far programmed. Some relief of congestion will be obtained through the programme of smaller schemes which are generally designed either to form part of a future ultimate improvement or, as in other cases notably on A38, provide widening up to three-lane standards on some hilly or tortuous sections of the existing road pending its relief by a motorway or other new road of high standard. These smaller schemes, however, affect a relatively small mileage of road and can give only partial relief.

491. The exposition in the preceding paragraphs of the Region's road requirements and of the Ministry of Transport's current plans for meeting these requirements clearly shows that the scale of investment at present envisaged in the trunk road system of the South West is quite inadequate for the Region's needs. In particular, the Council must express their profound dissatisfaction with the slow progress envisaged for construction of the regional spine road. The local authorities in the south and west part of the Region, through their Joint Committee for the South West, have been pressing for this road for many years. The report issued in 1965 by Associated Industrial Consultants Ltd., on the economy of the south west of the Region, which was commissioned by the Government and the Joint Committee together, also stressed the urgent need for the road. At an early stage of the Council's work, we accepted the Joint Committee's view that the greatest need in the economic planning of their area—Cornwall, Devon,

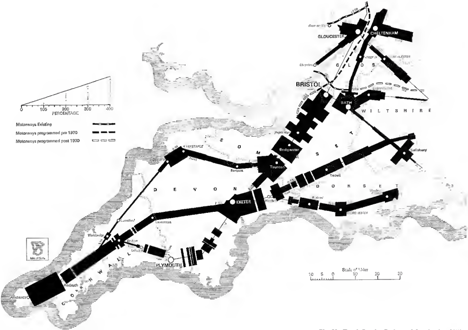


Fig. 23 Trunk Roads: Estimated Overload at 1970.

Dorset and Somerset—was for a spine road of adequate standard running from the end of the M5 in Somerset to Penzance. We undertook to seek the settling of a phased programme for the road to be constructed to an adequate standard by 1975.

492. It is now evident from paragraphs 482 and 483 that, under the Ministry of Transport's present plans, this objective will not be achieved. By the end of 1971, we shall have the M5 extension to Edithmead in Somerset. On the proposed new road between Edithmead and Exeter, only the Cullompton by-pass will have been built by 1975 and, possibly, a start made on one or two other sections. We may assume that 13 miles of the 36 mile stretch between Exeter and Plymouth will have dual carriageways by 1975, but, although preparation work is going ahead on schemes covering a further 10 miles, no dates have yet been set for improvement of the remaining 23 miles. West of Plymouth, although the Camborne by-pass and Roseworthy diversion are to be prepared, we have the firm promise only of the Liskeard by-pass.

493. The Council recognise the many competing demands for investment in the country's roads. But we believe that the economic and social return to be expected from a spine road in the South West justifies priority for the allocation of funds for it. It has not been demonstrated to us that there are any physical or technical barriers to the completion of a spine road in the terms which we, as a Council, confirmed to the Joint Committee. We therefore urge the Government to ensure its completion by 1975.

494. While the spine road is the first priority, there must also be investment in improvements to many other roads if the Region is to have a satisfactory rate of growth and opportunities are not to be wasted. The requirements set out in paragraphs 484–489 are the minimum needs, and accord with the pattern of growth in the South West which the Council are recommending.

495. Developments outside the Region may produce new road requirements. For example, expansion in the Southampton-Portsmouth area, as an outcome of the South Hampshire Study or developments in the port of Southampton, might call for a reappraisal of the Region's links with that area. In the determination of priorities, however, we shall wish to distinguish between additions to the programme which are to the benefit of the Region and proposals which would be competitive for road expenditure in the Region without contributing to it—and possibly imposing on its amenity.

496. Outside the trunk road system, there are also road problems in the urban areas and on the roads which are the responsibility of the local authorities.

497. Although much has been done, towns in the Region in common with towns throughout the country, are facing increased traffic congestion, the problem being particularly acute in the larger centres. The smaller towns suffer too in varying degrees. With the expected doubling of the number of vehicles on the roads over the next 13 or 14 years, conditions are bound to get worse unless drastic action is taken. Much planning has already been done in the larger towns and transportation surveys have been or are being carried out so that more effective road systems can be devised. It is clear, however, that the scale of expenditure involved is such that the problem cannot be solved by road improvements alone; traffic management techniques to secure the better use of roads in towns need to be exploited to the full.

498. Recent improvements carried out to classified roads in rural areas have been limited to smaller schemes generally providing increased visibility and dealing with bottle-necks and accident 'black-spots'. Much work remains to be done and further development of some routes as links with the motorway and trunk road system is needed.

Railways

499. The continuing loss of traffic by the railways to the roads is a particularly unfortunate technical revolution from the viewpoint of the South West, which has the heritage of a better rail network than a road system. The Council recognise that uneconomic railway systems cannot be maintained indefinitely; the difficulty is that railway services which are no longer fully used can be closed down very quickly, whereas to get the modern roads to replace them takes years.

500. The Council were consulted about the proposed basic rail network for the country referred to in Chapter 9 and now published in the report *British Railways Network for Development**. This is the basic rail pattern for the South West to which the Region's road system must be related in the future. The Council welcome the fact that, compared with the Beeching reshaping proposals, the new network will retain such lines of importance to this Region as, for example, those from Taunton to Reading via Westbury, from Salisbury to Exeter and on to Okehampton and Barnstaple, from Bristol to Weymouth via Westbury and Yeovil, and the line in the far south west from Plymouth to Penzance. The Council will be consulted by the Minister of Transport before decisions are taken on the existing passenger branch lines

*Ministry of Transport and British Railways Board, 1967

listed in paragraph 250, whose future is still to be fully investigated. Some of these lines will remain of vital importance to the areas which they serve until such time as the road links have been improved, and in such cases the Council will press for retention of the rail services at least until the deficiencies of the road system have been made good.

Airports

501. Planned investment in airport provision in the South West must take into account that no civil airport in this Region can expect to be self-supporting in the initial stages of operation; neither of the two major airports here—Bristol (Lulsgate) and Exeter—meets its costs from civil aviation revenues. Most towns and cities in the United Kingdom with a population of more than 150,000 have ready access to airports which are operated either by a city or by a consortium of local interests. These have been built as an act of faith in the growing part air transport will play in inter-city and medium-range European communications in the future.

502. Against this background, the Council see the future development of air communications in the Region centring mainly on two sub-regional airports, in the north and south-west. We discuss below possible locations for these sub-regional airports. Outside these, the people living in the eastern areas of the Region have the benefit of the services operated from the airports at Heathrow, Gloucester, Bournemouth and Southampton. In Cornwall, the civil establishment at the RAF aerodrome at St. Mawgan is available for local needs, although there appears scope for improvement of the services operated from there, particularly for holiday traffic. In North Devon, some civil flights operate from the RAF aerodrome at Chivenor.

503. In the north-east of the Region, the airport at Bristol (Lulsgate) at present serves sub-regional needs. A question for the future, which the Council will keep under review, is whether Lulsgate, south of the Avon, will still be the right location in the light of expected or possible developments in our Northern sub-region and in the area westward now linked by the Severn Bridge. For example, proposals for major expansion on Severnside beyond that implicit in the population forecasts in Chapter 16 would call for a reappraisal of the airport facilities available in this part of the Region. This is an aspect which the Severnside Study will need to consider. Even so, Lulsgate is, and in any event will be for a number of years, the only adequate sub-regional airport serving the Bristol-Gloucester-Somerset area.

504. In the south and west, there is an outstanding need to provide adequate air communications for Plymouth, one of the very few large towns in the country which is more than 15 miles from an airport offering public air transport services. Plymouth City Council have been seeking for many years, without success, a site for a modern airport in the vicinity of the city. With this situation in mind, we have undertaken an investigation with the full co-operation of the local authorities concerned into the question of providing a sub-regional airport for the south west.

505. The local authorities concerned see no problems in Cornwall and North Devon where, as already noted, civil facilities are available at RAF St. Mawgan and RAF Chivenor. This leaves the South Devon area—Exeter, Torbay and Plymouth. The consensus of the airline operators is that regular services with large aircraft can be operated from one airport only in this area. Accordingly, the Council consider, and this view is endorsed by the local authorities, that the needs of the area demand a sub-regional airport, as offering the best prospect of providing the standard of services which is desirable. On this basis, two choices are open: that of developing Exeter airport to serve Plymouth; or that of building a new airport midway between Exeter and Plymouth. Each of these choices posits major improvements to the A38 road. The Council have therefore asked the Government and the local authorities concerned to contribute to the cost of a survey to establish first whether a site for an alternative to Exeter airport exists, and then to ascertain the costs of constructing, maintaining and operating a sub-regional airport on the new site—if it can be found—and the comparable costs of similar development at Exeter.

Housing

506. It is not easy to forecast the Region's future housing requirements, and the estimates which follow are tentative only and should not be regarded as more than indications of broad magnitude.

507. Chapter 13 suggests that the Region is at present short of about 10,000 dwellings. It also calculates that between 100,000 and 200,000 of the dwellings in the existing housing stock may need to be replaced or improved by 1981. The future growth in households in the Region may entail a need for 187,000 new dwellings between 1965 and 1981: this estimate is based on the Council's views about future population trends and on the Ministry of Housing and Local Government's assumptions about future rates of household formation. As has been pointed out in Chapter 16, the Council's forecasts of the population in the Region in 1981 exclude possible population growth as a result of planned overspill schemes, or of major new development in the north of the Region as a consequence of the Severnside Study. Similarly, this estimate of the new houses required for increased population excludes any

needs which will arise for the reception of people from other parts of the country under such schemas.

508. Thus, excluding possible requirements under planned development schemes, the total housing need of the Region between 1965 and 1981 would appear to be in the range of about 300,000–400,000 dwellings, the higher figure being valid only if the most vigorous policy of replacement of unfit houses is followed. Appendix 27 sets out the range of total housing needs within the sub-regions and sub-divisions on the basis that, as well as meeting estimated current shortages and providing for the growth in households in the Region, housing requirements for slum clearance, obsolescence and redevelopment are also met. The figures are summarised in Table 42.

509. Over the Region as a whole, the land now allocated by the local planning authorities for housing purposes, together with the land which they consider suitable for housing but have not yet zoned, appears to be roughly in balance with regional needs up to 1981 as estimated above. The local planning authorities envisage that the bulk of future requirements will be met by the provision of new land not at present in residential use. Only about a sixth of the needs will be met by redevelopment in slum clearance areas or comprehensive development areas—mainly in the Severnside sub-division.

510. Naturally, there are areas where available land and estimated future housing needs are not absolutely matched. But, while local problems may arise, returns submitted by the local planning authorities indicate that there will be no difficulty in providing adequate land for housing in most of the sub-regions and sub-divisions. In both the sub-divisions of the Southern sub-region, the land potentially available appears to be markedly in excess of the amount that may be needed. At the other extreme, in the Central sub-region, particularly in the South East sub-division, there is some doubt as to whether there will be sufficient land. The North Gloucestershire sub-division appears to be in approximate balance, and there seems a sufficient surplus of land in the other sub-divisions. The balance sheet would need to be looked at again, however, if future policy decisions at national and regional level resulted in any substantial change in the size and distribution of the regional population as forecast by the Council—for example, in the context of major schemes for the reception of overspill population from other parts of the country. In any case, the local planning authorities will need to ensure that the right kind of land can be made available in the right places at the right time. There may also be special problems, for example, the preservation of countryside, agricultural land and coastline from sporadic and wasteful development. But within the broad acres of the Region there is no general problem of shortage of building land and probably few difficulties in particular areas which cannot be solved by the normal process of land use planning.

511. A maximum programme of about 400,000 new dwellings up to 1981 appears to be well within regional resources. If the rates of house building achieved in recent years by the combined efforts of local authorities and private enterprise were continued over the next 16 years, up to half a million new dwellings would be completed. There seems, therefore, to be a comfortable margin of resources over regional housing needs as now estimated, and, indeed, scope for a larger housing programme to accommodate major planned overspill schemes.

512. A question for the future will be the part to be played by local authorities on the one hand and private enterprise on the other in meeting regional housing needs. In 1981–65,

TABLE 42

Number of new dwellings required, 1965-81

Thousands

Area	Computed shortage of dwellings 1965*	New houses required for household growth 1965–81*	Range of new houses required for replacement need 1965–81	Range of total housing need (including allowance for vacancies) 1965–81
1	2	3	4	5
SOUTH WEST	**10·1**	**187·0**	**100–200**	**306 0–409 0**
Northern	4·5	101·6	34– 66	144 3–179·3
Central	3·1	47·6	24– 48	76·9–101·7
Southern	2·5	30·9	19– 38	54·0– 73·5
Western	†	6·9	23– 46	30 8– 54·5

*Column 2 is computed by subtracting the 1965 housing stock in each area from the estimated number of potential households. Apparent housing surpluses in some areas (i.e. excess of housing stock over potential households) are excluded from Columns 2 and 3

†Negligible

private enterprise built about three dwellings to every one completed by local authorities, and over two-thirds of the Region's house-building resources are at present devoted to providing buildings for sale. How does this square up with future needs? There are indications that in some parts of the Region the stock of council housing is already big enough to meet the demand for family accommodation to rent, although few authorities can claim that they have enough housing suitable for and within the means of the elderly. Moreover, it will remain important for local authorities to provide houses for key workers if they wish to attract new industry and support existing industry in their areas, possibly in conflict with the requirements of people longer established in those areas.

Energy

513. The future development of the Region to which the Council are looking should meet no insuperable problems of energy supply.

514. The present demand for primary fuels—coal and oil—is below the level of supplies available to the Region. Demand for coal will surely continue to contract. The extensions planned to the oil refineries which serve the South West will give the Region an extra reserve adequate for any foreseeable increase in the demand for transport and fuel oils.

515. Growth of the regional economy will call for increased investment in the production of the secondary fuels, electricity and gas. The expansion plans of the electricity suppliers described in Chapter 10 mean that the Region can look forward little more than five years hence to an electricity generating capacity which will be close on twice the present maximum regional demand. The extensions planned to regional gas-making plants will, before 1970, ensure a regional supply more than double the current level of demand. The Region also has the prospect of sizeable supplies of natural gas from the Gas Council's national grid. There will certainly be further expansion of electricity and gas supply facilities after 1970 as the area boards move forward their estimates of future demand.

516. It is not possible at this stage to quantify what effect the Council's proposals will have on future demand for electricity and gas. But the expansion plans referred to in the previous paragraph can be looked at against the growth in energy demand during the period of rapid regional expansion in 1954–64. In this decade, the electricity and gas suppliers met the needs of a 10 per cent growth in the regional population, and industrial sales of electricity and gas increased by a little over 100 per cent and a little under 50 per cent respectively. It would appear, therefore, that the investment plans are broadly in keeping with future regional needs.

517. There will, of course, be important problems to be settled. For example, it will sometimes be necessary to reconcile the need to expand energy supplies with the need to preserve the amenities of the South West. Again, the suppliers can reasonably ask to be given full and early information about development proposals which will call for additional energy provision, so that they can ensure that the supply will be available in the right amount and at the right time. The Council look forward to continuing discussions with the area electricity and gas boards about the way a balance between future supply and demand is to be achieved.

Water

518. In contrast to many other parts of Great Britain, water supply presents no major problem in the South West now and, assuming a future population of the size and distribution forecast in Chapter 16, and the industrial development to support it, no serious technical difficulties are expected in the future. The availability and cost of water supplies would naturally be one of the important questions to be determined before decisions were taken on any proposals for major expansion in the Region.

519. The main problems are those of distribution, because of the nature of the terrain. The available water is not always found in the valley in which demand arises. Schemes have to be devised for transfer of water from one river catchment area to another. Generally, schemes are in hand to safeguard the position until about 1981, and the river authorities are working on surveys for the longer term.

520. The most critical areas are those of Bristol Waterworks Company and North West Gloucestershire Water Board in the north, Swindon Borough Council in the east and North Devon Water Board in the west. The two northern undertakings are looking to the extension of the Clywedog regulating reservoir scheme for supplies up to 1981 and are investigating the feasibility of additional supplies from the Bristol Avon, the Severn and the Wye for their further needs up to the end of the century. Swindon is relying on development of further boreholes in the chalk in the Kennet valley for the immediate additional supply if the New Town is developed, with perhaps future claims for additional water from the Severn area. North Devon is relying on the water from an impounding reservoir to satisfy demands up to 1981 and is waiting now for a decision from Parliament on its Meldon Reservoir scheme.

521. The Water Resources Board has the task of advising the Government on national water policy. The Council will co-operate closely

with both the Board and the regional river authorities on matters of water supply in the South West.

Construction industries

522. The capacity of the regional construction industries for meeting the future needs of the South West cannot be assessed until those needs are more precisely determined. At present, housing accounts for over half the demand for new building, but the implication of the forecasts above is that regional housing requirements in 1981 may be rather less than the current rate of house building. On the other hand, it is clear that the realisation of the Council's strategy for the Region will depend on increased investment in other directions, notably on roads, but also on the factories, schools, etc., which will be needed in the future. A good many of the larger capital projects in the Region will no doubt continue to be undertaken by the national contractors, who will bring with them key labour suitable for the project concerned. Nevertheless, a lot of the work will fall to the construction industries in the South West. The development of the Region as envisaged by the Council therefore presents a challenge to the regional construction industries to meet future needs adequately and efficiently.

PART VI
SUMMARY

20 Summary of the Council's Views and Recommendations

523. We summarise here our conclusions, set out in Chapters 17, 18 and 19, about a strategy for the development of the South West, about regional economic policies, and about the investment requirements for the regional infrastructure.

A Strategy for the Region

524. The Region divides roughly into two halves: our Northern and Central sub-regions, comprising the counties of Gloucestershire, Bristol, Wiltshire, Dorset and Somerset (except for West Somerset), and our Southern and Western sub-regions, comprising the counties of Cornwall and Devon and West Somerset. Each half requires very different treatment. *Paras. 397–405.*

Northern and Central sub-regions

525. The natural economic growth potential of the north and east of the Region must not be impeded by over-rigorous restraints on development or by failure to provide the infrastructure—communications, housing and public services—necessary to support that growth. *Para. 407.*

526. There must be proper physical planning of the future growth, to avoid congestion problems and loss of amenity. *Para. 407.*

527. The scale and pattern of future growth in the Northern sub-region cannot be assessed before the completion of the Government's Severnside Study and of the Port of Bristol Authority's investigation, following the rejection of the Portbury scheme, of alternative ways of developing the Port of Bristol. The Council cannot, therefore, yet make comprehensive proposals for a development strategy for the Northern sub-region. Clearly, however, pressure of development will be particularly intense, whatever the findings of these investigations may be. We doubt whether the present development policies of the local authorities concerned will be adequate for expansion of the order we foresee without risk to the amenities of the area. Accordingly, we suggest that the Government and local authorities should explore, either in the context of the Severnside Study or by means of a separate study, alternative methods of development encompassing the area of Bristol, Bath, South Gloucestershire, North Somerset and West Wiltshire, designed to profit from the new motorway system and to build up, by the end of the century, a new complex of settlements of major importance. *Paras. 408–410.*

528. The problem areas of the Northern sub-region, notably the Forest of Dean and parts of the Cotswolds, may need further examination. *Para. 411.*

529. The Council support the Government's proposal for the further planned expansion of Swindon under the Town Development Act, with a planned intake of 75,000 people by 1981. *Para. 412.*

530. In the Central sub-region, the Wellington-Westbury sub-division stands to benefit from the influences of growth in the Northern sub-region and the South East sub-division from growth in the South East Region stemming out of London. The Council will examine further the prospects of the towns and villages of the Wellington-Westbury sub-division when the results of the Severnside Study are known. In the South East sub-division, industrial development should be concentrated at a limited number of places, including Poole, the Yeovil area and the Weymouth-Dorchester area, to

avoid interfering with agriculture and to encourage tourism. The Council welcome the studies by some local authorities of the feasibility of planned London overspill schemes, which may give a sounder population base for the local economy in some areas. In particular, we suggest that the local authorities concerned consider the possibility of a planned development in the Yeovil-Ilchester area. *Paras. 414–417.*

Southern and Western sub-regions

531. Special measures will be needed to establish and maintain the economic viability of the Southern and Western sub-regions. While agriculture and the holiday trades must continue to be staple parts of the economy of the south and west of the Region, they are not a sufficient base for future growth. A balance of industry is necessary to bring about stability. *Paras. 418–419.*

532. Improved communications alone will not do more than mitigate the economic problems of the south and west. We consider a major effort is called for to stimulate economic growth in places where a momentum of growth could be sustained such as would serve the needs of a wide surrounding area. *Paras. 420–421.*

533. We consider that such effort must start from Plymouth, the one town large enough to stand comparison with urban centres elsewhere which serve as foci for the economic and social life of the communities around them, with inherent potentialities for sound economic growth, and already an attractive location for industry despite its remoteness. We recommend that a primary aim of regional planning policies in the south and west should be to diversify the employment structure in Plymouth and some of the nearby small towns. There should be a clear programme for phasing in new and expanding industries with a phasing out of Plymouth's present dependence on Devonport Dockyard. Some special measures to bring in new workers may be needed initially to stimulate this process, and Plymouth City Council's study of the feasibility of a London overspill scheme should have this objective. *Paras. 422–425.*

534. All the far south west stands to benefit from a development of Plymouth as envisaged by the Council. Consideration should therefore be given to how best the local authorities concerned can co-operate to this end. *Para. 426.*

535. Given large-scale economic buoyancy at Plymouth, the West Cornwall sub-division, which is part of the South-western Development Area, should be able to attract complementary developments. We recommend that the Government continue to make every effort to maintain and extend the number of jobs in this area. *Para. 427.*

536. At the same time, West Cornwall needs a focal point for essential services and cultural and social amenities. We recommend that the local authorities concerned put in hand urgently a study of the possibilities for development to this end in the Truro-Camborne-Falmouth triangle, including the measures needed to secure additional population and employment in the triangle. *Para. 428.*

537. The Council will need to give closer consideration at a future date to the economy of the Isles of Scilly, which are almost exclusively dependent upon horticulture and the holiday trades as sources of livelihood. *Para. 429.*

538. The Exeter-Torbay sub-division would benefit from industrial development to the north and east of Exeter as well as at Plymouth. The local planning authorities concerned are studying the feasibility of a planned overspill scheme in the Tiverton area, between Exeter and Taunton, and intend to study similarly the Honiton and Exeter areas. The Council hope these studies will yield positive results which will then be turned quickly into action. *Paras. 430–431.*

539. The part of the Region with the least favourable prospects for self-sustaining growth is our Bodmin-Exmoor sub-division (North Cornwall, North Devon, West Somerset). At the western end, the local planning authority are considering the possibilities of London overspill schemes at Launceston and Bodmin. On the northern coast, the Barnstaple-Bideford area would require a substantial population influx to make the area capable of self-sustaining growth and Devon County Council are undertaking a study of the possibility of a planned London overspill scheme. Even if it proves feasible to develop the Barnstaple-Bideford area as a sizeable growth point, regional economic priorities might conceivably be better served by development within the Taunton-Exeter-Honiton triangle, backed by adequate road works between the northern coast and these centres. *Paras. 432–433.*

540. Accordingly, the Council invite urgent discussion of these choices for the future shape of the economies of the Southern and Western sub-regions. The Council intend to call upon the local planning authorities and regional interests concerned to work out a co-operative undertaking to make the most immediate use of the studies now in hand and to see what further local effort is required and may be best organised. *Para. 434.*

Regional Economic Policy

Agriculture and horticulture

541. Radical changes in farm structure will be

needed, especially in the far west, if the 'Regional Farm' is to make its full contribution to national growth. We therefore support the provisions of the Agriculture Act 1967, for financial incentives for amalgamation of holdings and for improving the productivity of hill farms. *Para. 436.*

542. We estimate that the present disparity between average gross output per holding in Devon and Cornwall on the one hand and the other four counties of the Region on the other hand will widen unless remedial action is taken. We are therefore making further studies of the problems of agriculture and horticulture in the Region. *Paras. 437–438.*

543. Meantime, to strengthen the competitiveness of the industry in Devon and Cornwall, we have already recommended:

a that the Minister of Agriculture should invite the Milk Marketing Board to augment their low cost production advisory service to milk producers in Devon and Cornwall. The Minister has agreed that implementation of this recommendation will be of material benefit to milk producers in the Region. *Para. 439;*

b that steps should be taken to keep abreast of horticulture marketing and production trends in regions of France which are likely to compete in the British market with the Region's horticulture products. We consider that more strenuous efforts are required to stimulate the formation of horticultural marketing groups, especially in the far south and west of the Region, and to improve marketing contacts. *Para. 440.*

544. The horticulture industry in the far south and west is handicapped by remoteness from its markets; this reinforces our case for a regional spine road. In view of the vital dependence of growers in the Scilly Isles on their links with the mainland and on inter-island transport, we are concerned at suggestions that these services may be reduced. *Para. 441.*

545. We have invited the Agricultural Training Board to consider the Region's training needs. *Para. 442.*

546. We propose to study further the part which farmers and growers can play in developing the tourist attractions of the Region. *Para. 443.*

Manufacturing

547. The Council recommend that Plymouth and its surrounding area—our Plymouth Area sub-division except for the Kingsbridge employment exchange area— should be included in the South-western Development Area. This is a logical consequence of our recommendation that Plymouth should be developed to serve as a focal point for self-sustaining economic growth in the south and west of the Region. The Okehampton employment exchange area, adjacent to the Plymouth Area sub-division, should also be included. *Paras. 452–455 and 457.*

548. West Cornwall is already within the South-western Development Area. Arising out of the study we have recommended of the growth potential of the Truro-Camborne-Falmouth triangle, we expect the Government to intensify its efforts to induce suitable manufacturing firms to set up establishments in West Cornwall; concentration on the triangle should not, however, rule out other locations. *Para. 456.*

549. In our Bodmin-Exmoor sub-division, any substantial population intake in the Barnstaple-Bideford area, or planned expansion schemes at Bodmin or Launceston, possibly on a smaller scale, will demand the introduction of new industry on a scale sufficient for the new levels of population. *Para. 456.*

550. We recommend that the Government should investigate the possibility of establishing a Board of Trade sub-regional office in Exeter or Plymouth to facilitate the Board's task of encouraging employers to locate new factories in the far south west. *Para. 458.*

551. The prospects for self-supporting growth in the (enlarged) South-western Development Area are bound to be enhanced if the introduction of new population and new industrial development under planned overspill schemes of the kind now being investigated by the local planning authorities proves possible. *Para. 459.*

552. Outside the South-western Development Area, possible London overspill schemes at Swindon, in the Shaftesbury area, near Tiverton, at Honiton, and in the Exeter area, would have good prospects of attracting industry provided decisions were made soon enough to meet Greater London's needs. *Para. 460.*

553. For the rest of the Region outside the South-western Development Area, industrial distribution policy should be directed to ensuring that the Region can contribute properly to national economic growth. We see a strong case for distinguishing between regions like the South West with room to grow and the more congested regions. *Para. 461.*

554. The many small towns which serve as centres for the areas around them should be maintained and encouraged to develop. Existing firms in such towns should be encouraged to grow where they are, and the door should also be open for new enterprises. *Para. 462.*

555. We recommend that industrial training

boards should give close attention to the training needs of small towns in the Region, and that more use be made of the rural industries services available through the Rural Industries Bureau and the Rural Industries Loan Funds. *Para. 463.*

556. Whatever the future of the country's aircraft industry as a whole may be, we urge the Government that the capacity, skill and technological expertise of the regional aircraft and aerospace industries should not be lost to the Region. *Para. 464.*

557. We hope the Government will give full weight to the advantages of the Region as a location for eny new nationally-supported research associations. *Para. 465.*

The holiday trades

558. The Council will study further the future of the holiday trades of the Region when the results of current research investigations are available. *Paras. 466–467.*

559. We see a case for relief from the Selective Employment Tax on services in respect of elderly persons and part-time workers, who are an important element in hotel and catering employment in the Region. *Para. 468.*

Office activities

560. We consider that growth of needed office employment in Devon and Cornwall lies in the development of Plymouth as an office centre. We therefore recommend that the Government should give full weight to the suitability of Plymouth when considering locations for its decentralised establishments. Some movement of offices into the north and east of the Region, particularly Bristol and Swindon, may also be desirable on both national and local grounds. *Paras. 469–471.*

Investment Requirements

Ports

561. The Council will continue to urge on the Government the importance of port investment in the Upper Bristol Channel, particularly at the Port of Bristol. We will keep closely in touch with current proposals for developing Portland Harbour as a major commercial port, and will review in due course the adequacy of the facilities at the smaller ports of the Region in relation to regional development plans. *Paras. 474–477.*

Roads

562. The road system over much of the Region is quite unsuited to the needs of a modern economy. In particular, there is urgent need for the early construction of a 'spine road' of adequate standard running from the end of the M5 in Somerset to Plymouth and Penzance. The Government's current motorways and large trunk road improvements programmes will give some relief to the Region's trunk road system, but much will remain to be done even when the schemes in these programmes and in the present 'preparation pool' have been completed. *Paras. 479–490.*

563. At an early stage of the Council's work we undertook to seek the settling of a phased programme for a regional spine road to be constructed to an adequate standard by 1975. It is now evident that the Ministry of Transport's present plans will not achieve this objective. We believe that the economic and social return to be expected from a spine road justifies priority for the allocation of funds for it. We therefore urge the Government to ensure the completion of an adequate spine road by 1975: we are eware of no physical or technical barriers to this. *Paras. 491–493.*

564. The spine road is the first priority, but there must also be investment in improvements to many other trunk roads in the Region. *Para. 494.*

Railways

565. The Council accept the report on the basic rail network published by the Ministry of Transport and the British Railways Board in March 1967 as the railway pattern for the South West to which the Region's road system must be related in the future. At the same time, some of the existing passenger branch lines which are not included in the basic network will remain of vital importance to the areas they serve until the road links have been improved, and, in these cases, the Council will press for retention of the rail services at least until deficiencies of the road system have been made good. *Paras. 499–500.*

Airports

566. The Council see future development of regional air services centring mainly on two sub-regional airports, in the north and in the south and west. In the north, we will keep under review the suitability of Bristol (Lulsgate) Airport as the location for the sub-regional airport in the light of expected or possible developments in our Northern sub-region. In the south and west, having regard to the outstanding need to provide adequate air communications for Plymouth, two choices for a sub-regional airport are open—that of developing Exeter Airport to serve Plymouth or that of building a new airport midway between Exeter and Plymouth. The Council have therefore asked the Government and local authorities concerned to contribute to the cost of a survey aimed at establishing the feasibility and merits of these alternative choices. *Paras. 501–505.*

Housing

567. The future housing needs of the Region

as estimated by the Council appear to be well within regional resources. Particular problems which may arise in some areas, for example, housing land availability, preservation of the Region's agricultural land and amenities, seem capable of solution by the normal land use planning processes. *Paras. 506–512.*

Energy

568. The Council foresee no insuperable problems of energy supply. Growth of the regional economy will demand increased investment in the production of electricity and gas, and the investment plans of the electricity and gas suppliers are broadly in line with future regional needs. We will continue to discuss with the area electricity and gas boards which serve the Region the means of ensuring a balance between future supply and demand. *Paras. 513–517.*

Water

569. Water supply is not expected to present major technical difficulties in the futura. The Council will co-operata closely with the Water Resources Board and regional river authorities on matters of water supply in the South West. *Paras. 518–521.*

Appendices

APPENDIX 1

South West Economic Planning Region: sub-regions and sub-divisions

Sub-region/ sub-division	Equivalent local authority areas	Nearest equivalent Ministry of Labour areas
Northern sub-region		
North Gloucestershire sub-division	Rural Districts: Cheltenham; Cirencester; Dursley; East Dean; Gloucester; Lydney; Newent; North Cotswold; Northleach; Stroud; Tetbury; West Dean.	Cheltenham; Cinderford Group (Cinderford, Lydney); Cirencester; Coleford; Dursley; Gloucester; Stroud; Tewkesbury.
	Urban Districts: Charlton Kings; Cirencester; Nailsworth; Stroud.	
	Municipal Boroughs: Cheltenham; Tewkesbury.	
	County Borough: Gloucester.	
Bristol-Severnside sub-division	Rural Districts: Axbridge; Bathavon; Clutton; Long Ashton; Sodbury; Thornbury; Warmley.	Bath; Bristol Group (Bristol, Avonmouth, Kingswood, Westbury-on-Trym); Chipping Sodbury; Clevedon; Keynsham; Midsomer Norton; Weston-super-Mare.
	Urban Districts: Clevedon; Keynsham; Kingswood; Mangotsfield; Norton Radstock; Portishead.	
	Municipal Borough: Weston-super-Mare.	
	County Boroughs: Bath; Bristol.	
North Wiltshire sub-division	Rural Districts: Bradford & Melksham; Calne & Chippenham; Cricklade & Wootton Bassett; Devizes; Highworth; Malmesbury; Marlborough & Ramsbury; Pewsey.	Chippenham; Devizes; Hawthorn; Malmesbury; Melksham; Swindon; Trowbridge.
	Urban Districts: Bradford-on-Avon; Melksham; Trowbridge.	
	Municipal Boroughs: Calne; Chippenham; Devizes; Malmesbury; Marlborough; Swindon.	
Central sub-region		
Wellington-Westbury sub-division	Rural Districts: Bridgwater; Frome; Shepton Mallet; Taunton; Warminster & Westbury; Wellington; Wells.	Bridgwater; Burnham-on-Sea; Frome; Shepton Mallet; Street; Taunton; Warminster.
	Urban Districts: Burnham-on-Sea; Frome; Shepton Mallet; Street; Warminster; Wellington; Westbury.	
	Municipal Boroughs: Bridgwater; Glastonbury; Taunton; Wells.	
South East sub-division	Rural Districts: Amesbury; Beaminster; Blandford; Bridport; Chard; Dorchester; Langport; Mere & Tisbury; Salisbury & Wilton; Shaftesbury; Sherborne; Sturminster; Wareham & Purbeck; Wimborne & Cranborne; Wincanton; Yeovil.	Blandford; Bridport; Chard; Dorchester; Salisbury; Shaftesbury; Sherborne; Swanage; Wareham; Weymouth; Wimborne; Yeovil Group (Yeovil, Crewkerne); (Poole*).
	Urban Districts: Crewkerne; Ilminster; Portland; Sherborne; Swanage; Wimborne Minster.	
	Municipal Boroughs: Blandford Forum; Bridport; Chard; Dorchester; Lyme Regis; Poole; Salisbury; Shaftesbury; Wareham; Weymouth & Melcombe Regis; Wilton; Yeovil.	

*See note † to Appendix 10.

Sub-region/ sub-division	Equivalent local authority areas	Nearest equivalent Ministry of Labour areas
Southern sub-region		
Exeter-Torbay sub-division	Rural Districts: Axminster; Crediton; Honiton; Newton Abbot; St. Thomas; Tiverton; Totnes. Urban Districts: Ashburton; Brixham; Buckfastleigh; Budleigh Salterton; Crediton; Dawlish; Exmouth; Newton Abbot; Ottery St. Mary; Paignton; Seaton; Sidmouth; Teignmouth. Municipal Boroughs: Dartmouth; Honiton; Tiverton; Torquay; Totnes. County Borough: Exeter.	Ashburton; Axminster; Bovey Tracey; Brixham; Cullompton; Dartmouth; Exeter; Exmouth; Honiton; Newton Abbot; Paignton; Seaton; Teignmouth; Tiverton; Torquay; Totnes.
Plymouth Area sub-division	Rural Districts: Kingsbridge; Liskeard; Plympton St. Mary; St. Germans; Tavistock. Urban Districts: Kingsbridge; Looe; Salcombe; Torpoint. Municipal Boroughs: Liskeard; Saltash. County Borough: Plymouth.	Gunnislake; Kingsbridge; Liskeard Group (Liskeard, Looe); Plymouth Group (Plymouth, Devonport, Saltash); Plympton; Tavistock.
Western sub-region		
West Cornwall sub-division	Rural Districts: Kerrier; St. Austell; Truro; West Penwith. Urban Districts: Camborne-Redruth; Newquay; St. Austell; St. Just. Municipal Boroughs: Falmouth; Fowey; Helston; Lostwithiel; Penryn; Penzance; St. Ives; Truro. Isles of Scilly.	Camborne Group (Camborne, Redruth); Falmouth; Helston; Newquay Group (Newquay, Perranporth); Penzance Group (Penzance, St. Ives, St. Mary's); St. Austell; Truro.
Bodmin-Exmoor sub-division	Rural Districts: Barnstaple; Bideford; Camelford; Dulverton; Holsworthy; Launceston; Okehampton; South Molton; Stratton; Torrington; Wadebridge; Williton. Urban Districts: Bude-Stratton; Ilfracombe; Lynton; Minehead; Northam; Padstow; Watchet. Municipal Boroughs: Barnstaple; Bideford; Bodmin; Great Torrington; Launceston; Okehampton; South Molton.	Barnstaple; Bideford; Bodmin; Bude; Camelford; Ilfracombe; Launceston; Minehead; Okehampton; Wadebridge.

APPENDIX

2 Numerical distribution of civilian population, 1964, by age and sex

Thousands

Area	Both sexes	Males			Females			Both sexes
	0–14	15–44	45–64	65 and over	15–44	45–59	60 and over	All ages
GREAT BRITAIN	**12,100·8**	**10,467·0**	**8,220·3**	**2,376·2**	**10,482·3**	**6,174·4**	**5,498·0**	**52,319·0**
SOUTH WEST	**808·8**	**682·7**	**426·8**	**194·2**	**685·7**	**357·7**	**427·8**	**3,583·8**
Northern	379·7	329·1	189·8	76·1	322·9	164·7	173·5	1,625·8
North Gloucestershire	104·3	88·1	50·7	19·9	86·5	41·1	46·1	436·7
Bristol-Severnside	193·7	175·8	103·2	41·6	172·3	86·6	98·1	870·4
North Wiltshire	81·7	65·2	36·9	14·6	64·1	28·0	29·3	318·7
Central	173·3	140·8	90·0	43·1	142·9	75·9	91·7	757·7
Wellington-Westbury	54·3	45·1	28·0	12·5	45·1	23·2	27·4	235·6
South East	119·0	95·7	62·0	30·6	97·8	52·7	64·3	522·1
Southern	182·0	134·6	92·3	47·1	139·4	80·2	103·7	769·4
Exeter-Torbay	85·1	72·5	52·5	29·4	75·9	47·1	66·2	428·7
Plymouth Area	76·9	62·1	39·8	17·7	63·6	33·1	37·5	330·7
Western	93·8	78·2	54·7	27·9	80·5	46·9	59·0	440·9
West Cornwall	50·8	43·6	30·0	14·4	45·1	25·9	31·4	241·2
Bodmin-Exmoor	43·0	34·6	24·7	13·5	35·4	21·0	27·6	199·7

Note: Because of rounding, some totals may differ from the sum of their components

APPENDIX 3

Index comparing age/sex structure of civilian population in South West Region with that of Great Britain, 1964

Area	Both sexes	Males				Females			
	0–14	15–44	45–64	15–64	65 and over	15–44	45–59	15–59	60 and over
GREAT BRITAIN	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**
SOUTH WEST	**98·7**	**96·0**	**100·8**	**97·8**	**120·0**	**95·5**	**102·0**	**95·4**	**114·4**
Northern	101·7	102·0	99·2	100·9	104·4	99·1	96·9	96·1	102·9
North Gloucestershire	104·4	101·5	98·3	100·6	102·2	98·9	95·9	95·4	101·8
Bristol-Severnside	96·9	102·0	100·8	101·6	108·7	98·8	100·0	96·7	108·7
North Wiltshire	111·8	103·5	94·9	100·3	102·2	100·4	89·8	94·4	88·6
Central	99·6	93·9	100·8	96·5	126·7	94·1	102·0	94·4	118·3
Wellington-Westbury	100·9	96·5	100·8	98·1	120·0	95·5	100·0	94·8	111·5
South East	99·6	92·4	100·8	95·6	131·1	93·5	103·1	94·1	118·3
Southern	93·0	89·4	103·4	94·6	137·8	91·6	108·2	94·4	131·7
Exeter-Torbay	86·9	85·4	103·4	92·1	153·3	88·4	112·2	93·8	148·1
Plymouth Area	101·7	94·9	101·7	97·5	120·0	95·9	102·0	95·4	108·7
Western	93·0	89·4	105·1	95·3	140·0	91·1	108·2	94·4	128·8
West Cornwall	82·1	91·4	105·1	96·5	133·3	93·3	109·2	98·4	125·0
Bodmin-Exmoor	93·8	87·4	105·1	94·0	148·9	88·4	107·1	91·6	133·7

APPENDIX

4 Proportion of population of England and Wales and of Great Britain resident in the South West Region, 1821-1964

Year	Population of South West Economic Planning Region					
	Enumerated			Civilian		
	No. '000	% of population of England and Wales	% of population of Great Britain	No. '000	% of population of England and Wales	% of population of Great Britain
1	2	3	4	5	6	7
1821	1,756	14·8	12·5			
1831	1,983	14·3	12·2			
1841	2,173	13·7	11·7			
1851	2,264	12·6	10·9			
1881	2,323	11·6	10·0			
1871	2,415	10·8	9·3			
1881	2,426	9·3	6·2			
1691	2,498	8·6	7·6			
	2,493					
1901	2,598	8·0	7·0			
1911	2,728	7·6	6·7			
1921	2,789	7·3	6·5			
1931	2,854	7·1	6·4			
	2,794	7·0	6·2			
1939	2,927	7·1	6·3			
1951	3,312	7·6	6·8	3,329	7·6	6·9
1961	3,483	7·5	6·8	3,461	7·5	6·8
1964				3,564	7·6	8·8

Notes:

1 The figures in column 2 are the census enumerated populations (except 1939). The figures for years prior to 1891 are for aggregates of Ancient Counties; subsequent ones (both in columns 2 and 5) relate to areas as constituted in 1964. Bridging figures are given for 1891 and 1931.

2 In column 5 the Registrar General's mid-year estimates are given for comparison; equivalent estimates are not available for earlier years.

APPENDIX 5

Civilian Population Changes, 1939-54

Area	Total change No.	% of regional total	Natural change No.	% of regional total	Balance including migration No.	% of regional total
GREAT BRITAIN	**2,602,000**		**3,183,000**		**−581,000**	
SOUTH WEST	**381,600**	**100·0**	**166,700**	**100·0**	**214,900**	**100·0**
Northern	200,000	52·6	101,200	60·7	98,800	46·0
North Gloucestershire	73,000	19·2	29,000	17·4	44,000	20·5
Bristol-Severnside	80,400	21·1	49,000	29·4	31,400	14·6
North Wiltshire	46,600	12·2	23,100	13·9	23,500	10·9
Central	98,300	25·5	40,500	24·3	57,800	26·9
Wellington-Westbury	34,300	8·8	12,100	7·3	22,200	10·3
South East	64,000	16·7	28,400	17·0	35,600	16·6
Southern	50,200	13·2	17,200	10·3	33,000	15·3
Exeter-Torbay	40,900	10·8	− 1,100	− 0·7	42,000	19·6
Plymouth Area	9,300	2·4	18,300	11·0	− 9,000	− 4·2
Western	33,200	8·8	7,800	4·7	25,400	11·8
West Cornwall	16,300	4·3	4,400	2·7	11,900	5·5
Bodmin-Exmoor	16,900	4·5	3,300	2·0	13,600	6·3

Note: Because of rounding, some totals may differ from the sum of their components.

APPENDIX 6

Civilian population changes, 1954-61

Area	1954		Total change		Natural change	Estimated gain from Armed Forces	Planned overspill	Balance	1961	
	Mid-year civilian population No.	% of regional total	No.	%	No.	No.	No.	No.	Mid-year civilian population No.	% of regional total
GREAT BRITAIN	**48,807,000**		**2,240,000**	**4 6**	**1,673,000**	**357,000**		**210,000**	**51,047,000**	
SOUTH WEST	**3,261,100**	**100 0**	200,200	6 1	75,200	24,100	13,100	67,800	**3,461,300**	**100 0**
Northern	1,441,900	44 2	118,700	8·2	53,100	10,600	13,100	41,900	1,560,600	45·1
North Gloucestershire	388,100	11·9	30,500	7 9	15,900	2,900		11,700	418,600	12·1
Bristol-Severnside	798,200	24 5	46,900	6 8	22,700	5,800		18,400	846,100	24·4
North Wiltshire	254,600	7 8	41,300	16·2	14,500	1,900	13,100	11,800	295,900	8 6
Central	879,500	20 8	50,400	7·4	17,200	5,000		28,200	729,900	21·1
Wellington-Westbury	211,800	6·5	15,500	7·3	5,800	1,600		8,100	227,300	6·6
South East	457,700	14·3	34,900	7·5	11,400	3,400		20,100	502,600	14·5
Southern	708,900	21 8	28,500	4·0	3,900	5,300		19,300	737,400	21·3
Exeter-Torbay	391,400	12·0	21,900	5·8	−3,900	2,900		22,900	413,300	11·9
Plymouth Area	317,500	9 8	6,600	2 1	7,800	2,400		−3,600	324,100	9 4
Western	430,800	13·2	2,600	0·6	1,000	3,200		−1,600	433,400	12·5
West Cornwall	232,600	7·1	3,600	1·6	700	1,700		1,200	236,400	6·8
Bodmin-Exmoor	198,000	6·1	−1,000	−0·5	300	1,500		−2,800	197,000	5·7

Notes: 1 Figures relate to local authority areas as constituted in 1964.
2 1961 mid-year estimates are figures as revised by the Registrar General
3 Planned overspill into North Wiltshire sub division excludes intake into Swindon of 1,025 key workers and their families recruited from outside Greater London.

APPENDIX 7

Civilian Population Changes, 1961-64

Area	1961		Total change		Natural change	Estimated gain from Armed Forces	Planned overspill	Balance	1964	
	Mid-year civilian population No.	% of regional total	No.	%	No.	No.	No.	No.	Mid-year civilian population No.	% of regional total
GREAT BRITAIN	**51,047,000**		**1,272,000**	**2·5**	**993,000**	**54,000**		**225,000**	**52,319,000**	
SOUTH WEST	**3,461,300**	**100·0**	**122,500**	**3·5**	**48,000**	3,400	+5,500	**65,600**	**3,583,800**	**100·0**
Northern	1,580,600	45·1	65,200	4·2	33,100	1,600	+5,500	25,000	1,625,800	45·4
North Gloucestershire	418,600	12·1	18,100	4·3	8,900	400		8,800	436,700	12·2
Bristol-Severnside	846,100	24·4	24,300	2·9	14,700	900	+ 800	7,900	870,400	24·3
North Wiltshire	295,900	8·6	22,800	7·7	9,500	300	+4,700	8,300	318,700	8·9
Central	729,900	21·1	27,800	3·8	9,900	700		17,200	757,700	21·1
Wellington-Westbury	227,300	6·6	8,300	3·7	3,300	200		4,800	235,600	6·6
South East	502,600	14·5	19,500	3·9	6,600	500		12,400	522,100	14·5
Southern	737,400	21·3	22,000	3·0	4,100	700		17,200	759,400	21·2
Exeter-Torbay	413,300	11·9	15,400	3·7	−100	400		15,100	428,700	12·0
Plymouth Area	324,100	9·4	5,500	2·0	4,200	300		2,100	330,700	9·2
Western	433,400	12·5	7,500	1·7	900	400		6,200	440,900	12·3
West Cornwall	236,400	6·8	4,800	2·0	700	200		3,900	241,200	6·7
Bodmin-Exmoor	197,000	5·7	2,700	1·4	200	200		2,300	199,700	5·6

Notes 1 Figures relate to local authority areas as constituted in 1964.
2 1961 mid-year estimates are figures as revised by the Registrar General
3 Planned overspill into North Wiltshire sub-division excludes intake into Swindon of 347 key workers and their families recruited from outside Greater London.

APPENDIX

8 Changes in age and sex structure of population, 1951-61

Census enumerated population

Area	Both sexes		Males					
	0–14		15–44		45–64		65 and over	
	No.	%	No.	%	No.	%	No.	%
GREAT BRITAIN	**+1,243,000**	**11·3**	**− 122,800**	**− 1·2**	**+ 802,500**	**14·7**	**+ 144,900**	**6·7**
SOUTH WEST	**+ 78,000**	**11·0**	**− 26,600**	**− 3·8**	**+ 55,400**	**14·9**	**+ 20,400**	**12·0**
Northern	+ 45,300	14·1	+ 4,900	1·8	+ 28,100	17·5	+ 6,200	9·2
North Gloucestershire	+ 12,600	14·4	+ 800	1·0	+ 8,500	20·4	+ 1,500	8·4
Bristol-Severnside	+ 14,900	8·5	+ 8,600	5·4	+ 14,300	18·0	+ 3,900	10·5
North Wiltshire	+ 17,800	30·7	− 4,500	− 6·4	+ 5,300	18·1	+ 800	6·3
Central	+ 19,400	13·2	− 11,100	− 7·4	+ 12,100	15·7	+ 5,400	14·9
Wellington-Westbury	+ 8,200	13·5	− 600	− 1·4	+ 3,300	13·6	+ 1,200	11·0
South East	+ 13,200	13·0	− 10,500	− 9·8	+ 8,800	18·7	+ 4,200	16·5
Southern	+ 10,200	6·8	− 12,500	− 8·6	+ 10,200	12·2	+ 5,900	14·5
Exeter-Torbay	+ 5,800	7·5	− 1,700	− 2·4	+ 7,000	15·2	+ 4,900	20·2
Plymouth Area	+ 4,400	6·2	− 10,800	− 14·5	+ 3,200	8·5	+ 1,000	6·0
Western	+ 3,100	3·4	− 7,900	− 9·2	+ 5,000	9·7	+ 2,900	11·5
West Cornwall	+ 1,900	3·9	− 2,500	− 5·5	+ 3,300	12·0	+ 1,600	12·3
Bodmin-Exmoor	+ 1,200	2·9	− 5,400	− 13·5	+ 1,700	7·1	+ 1,300	10·6

APPENDIX **8** *continued*

Changes in age and sex structure of population, 1951-61

Census enumerated population

Area	Females						All ages	
	15–44		45–59		60 and over			
	No.	%	No.	%	No.	%	No.	%
GREAT BRITAIN	**−502,100**	**− 4·7**	**+388,600**	**7·8**	**+ 790,900**	**17·8**	**+2,743,100**	**8·8**
SOUTH WEST	**− 22,400**	**− 3·3**	**+ 27,100**	**8·0**	**+ 61,200**	**17·5**	**+ 193,100**	**5·8**
Northern	+ 3,500	1·2	+ 12,600	8·7	+ 23,600	18·7	+ 124,200	8·6
North Gloucestershire	+ 800	1·0	+ 4,300	11·5	+ 6,000	16·0	+ 34,500	8·9
Bristol-Severnside	− 3,400	− 2·0	+ 5,200	6·3	+ 13,300	16·3	+ 56,800	7·2
North Wiltshire	+ 6,100	11·6	+ 3,100	12·7	+ 4,300	19·0	+ 32,900	12·2
Central	− 3,700	− 2·7	+ 7,500	10·9	+ 13,700	18·8	+ 43,300	6·3
Wellington-Westbury	− 1,000	− 2·3	+ 1,600	7·4	+ 3,600	16·1	+ 14,300	8·8
South East	− 2,700	− 2·8	+ 5,900	12·4	+ 10,100	20·0	+ 29,000	6·0
Southern	− 12,000	− 8·2	+ 5,300	8·8	+ 18,600	19·7	+ 23,700	3·3
Exeter-Torbay	− 6,300	− 7·9	+ 3,700	8·2	+ 11,800	22·5	+ 25,200	6·4
Plymouth Area	− 6,700	− 8·5	+ 1,600	4·9	+ 4,800	15·1	− 1,500	− 4·5
Western	− 10,200	−11·4	+ 1,700	3·6	+ 7,300	14·4	+ 1,900	4·3
West Cornwall	− 4,900	− 9·9	+ 1,500	5·8	+ 3,900	14·4	+ 4,800	2·0
Bodmin-Exmoor	− 6,300	−13·3	+ 200	0·9	+ 3,400	14·3	− 2,900	− 1·4

APPENDIX

9 Note on Employment Statistics

Regional, sub-regional and sub-divisional estimates of the number of *employees in employment* relate to the situation in the summer of each year although they also include some people who worked at other times in the year but were neither employed nor registered as unemployed at mid-year. The statistics thus represent the maximum employment in an area. Quarterly estimates of the total number of employees in each region have been compiled for periods since June 1965 but no industrial or sub-regional analysis of these is available.

The estimates record the number of employees and not the number of jobs: double or multiple job holding is ignored, and no distinction is made between full-time and part-time employees or irregular or occasional workers.

The main categories of workers excluded from the estimates are employers and self-employed, serving members of HM Forces and some students doing vacation work (if shown as such on their National Insurance cards).

APPENDIX

10 Distribution of Employment, mid-1965

Industrial Order	South West Region† Employees in employment 1965 Males '000	Females '000	Total '000	Proportion of total employment: in South West Region† %	in Northern sub-region %	in Central sub-region† %	in Southern sub-region %	in Western sub-region %	in Great Britain %
Agriculture, forestry and fishing	46·0	7·9	53·9	4·1	2·3	7·2	3·5	8·2	2·1
Mining and quarrying	18·4	1·1	17·5	1·3	0·7	0·8	1·1	5·7	2·7
Total: EXTRACTIVE INDUSTRIES	62·4	9·0	71·4	5·4	3·0	8·1	4·6	13·9	4·8
Food, drink and tobacco	38·7	23·7	62·4	4·7	6·2	3·6	2·9	2·3	3·5
Chemicals and allied industries	9·2	2·6	11·6	0·9	1·0	1·1	0·6	0·2	2·2
Metal manufacture	5·0	*	5·8	0·4	0·7	0·2	0·2	0·2	2·7
Engineering and electrical goods	76·8	27·5	104·3	7·9	10·7	4·6	5·5	4·2	9·8
Shipbuilding and marine engineering	17·3	*	17·9	1·3	0·2	0·2	5·4	1·2	0·9
Vehicles	56·8	6·4	63·2	4·8	7·9	2·9	0·9	0·1	3·7
Metal goods not elsewhere specified	8·2	3·0	11·2	0·8	1·2	0·8	0·6	0·3	2·6
Textiles	9·6	5·6	15·2	1·1	1·1	1·5	1·2	0·8	3·3
Leather, leather goods and fur	2·5	1·0	3·5	0·3	0·1	0·7	0·3	0·2	0·3
Clothing and footwear	9·5	17·7	27·2	2·1	1·4	5·1	1·4	1·3	2·3
Bricks, pottery, glass, cement, etc.	9·6	1·5	11·1	0·8	0·7	1·2	0·9	0·6	1·5
Timber, furniture, etc.	13·5	3·2	16·7	1·3	1·4	1·3	1·1	0·7	1·3
Paper, printing and publishing	23·9	11·6	35·5	2·7	3·9	1·6	1·4	1·0	2·7
Other manufacturing industries	11·3	4·7	16·0	1·2	1·7	1·6	0·2	0·2	1·5
Total: MANUFACTURING INDUSTRIES	291·9	109·9	401·8	30·3	38·2	26·4	22·5	13·3	38·2

*The figure is too small to be given within acceptable margins of error.

†These statistics exclude Poole which falls outside the South Western Standard Region. It is not practicable to adjust the South West's statistics to include Poole since Poole (in the South West Economic Planning Region) and Bournemouth and Christchurch (in the South East Economic Planning Region) form one industrial complex and there is a great deal of interchange of workers between them. It is estimated that, in 1965, there were about 34,000 employees in Poole (22,000 males and 12,000 females) distributed among:

Extractive Industries	½ per cent
Manufacturing Industries	43 per cent
Service Industries and Construction	56½ per cent

(continued overleaf)

APPENDIX

10 *continued* Distribution of Employment, mid-1965

Industrial Order	South West Region†			Proportion of total employment					
	Employees in employment 1965			in South West Region†	in Northern sub-region	in Central sub-region†	in Southern sub-region	in Western sub-region	in Great Britain
	Males	Females	Total						
	'000	'000	'000	%	%	%	%	%	%
CONSTRUCTION	107·7	4·5	112·2	8·5	7·8	8·8	9·3	9·3	7·2
Gas, electricity, water	26·1	3·7	29·8	2·2	2·2	1·8	2·6	2·6	1·8
Transport and communication	77·0	13·3	90·3	6·8	8·7	5·7	8·0	7·0	7·0
Distributive trades	87·3	93·7	181·0	13·7	12·7	12·5	15·9	18·0	12·8
Insurance, banking, finance	14·9	12·8	27·7	2·1	2·0	1·8	2·7	2·0	2·7
Professional and scientific services	55·7	108·1	164·8	12·4	12·2	13·9	12·0	11·6	10·4
Miscellaneous services	62·6	87·7	150·3	11·3	8·5	11·2	15·2	17·9	9·5
Public administration	73·0	23·8	96·8	7·3	6·7	9·7	7·2	6·2	5·6
Total: SERVICE INDUSTRIES (Construction not included)	396·6	344·1	740·7	55·6	51·0	56·8	63·8	63·5	49·8
TOTAL: ALL INDUSTRIAL ORDERS	859	468	1,326	100·0	100·0	100·0	100·0	100·0	100·0

*The figure is too small to be given within acceptable margins of error.

†These statistics exclude Poole which falls outside the South Western Standard Region. It is not practicable to adjust the South West's statistics to include Poole since Poole (in the South West Economic Planning Region) and Bournemouth and Christchurch (in the South East Economic Planning Region) form one industrial complex and there is a great deal of interchange of workers between them. It is estimated that, in 1965, there were about 34,000 employees in Poole (22,000 males and 12,000 females) distributed among:

Extractive Industries	½ per cent
Manufacturing Industries	43 per cent
Service Industries and Construction	56½ per cent

APPENDIX

11 Numbers of self-employed, 1961 Census

Area	Male		Female		Total
	No.	% of economically active population	No.	% of economically active population	
ENGLAND AND WALES	**1,214,290**	**8·4**	**302,080**	**4·3**	**1,516,370**
SOUTH WEST*	**127,870**	**12·4**	**25,740**	**8·0**	**153,610**
Gloucestershire	25,290	8·1	5,340	3·8	30,630
Wiltshire	11,810	8·5	2,090	4·1	13,900
Dorset*	9,580	14·7	2,020	8·1	11,600
Somerset	23,630	13·1	4,820	8·1	28,450
Devon	38,480	15·3	7,650	8·0	44,130
Cornwall	21,080	20·8	3,820	11·5	24,900

*Excluding Poole
Notes: All figures have been adjusted for known bias in the Census.

12 Changes in employees in employment, 1960-64

Industrial Order	South West Region (see note 2) change 1960–64						Great Britain change 1960–64		
	'000			%			%		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
Agriculture, forestry and fishing	−9·8	+0·6	−9·3	−16	+ 8	−14	−17	− 4	−15
Mining and quarrying	−0·1	+0·2	+0·1	− ½	*	+ ½	−15	− 3½	−14
Total: EXTRACTIVE INDUSTRIES	−9·9	+0·7	−9·2	−13	+ 8	−11	−16	− 4½	−15
Food, drink and tobacco	+1·8	+0·8	+2·8	+ 5	+ 3½	+ 4½	+ 3½	Nil	+ 2
Chemicals and allied industries	−0·1	−0·4	−0·5	− 1½	*	− 5	− 4	− 4	− 4
Metal manufacture	−0·2	+0·1	−0·1	*	*	− 2	+ ½	+ ½	+ ½
Engineering and electrical goods	+11·8	+6·1	+17·7	+20	+31	+23	+ 7	+10	+ 8
Shipbuilding and marine engineering	−1·5	−0·1	−1·6	− 8	*	− 8	−20	−11	−20
Vehicles	−7·7	−1·1	−8·8	−11	−12	−11	− 4½	− 4½	− 4½
Metal goods not elsewhere specified	+2·5	+0·9	+3·4	*	*	+50	+ 6	Nil	+ 4
Textiles	+2·3	−0·2	+2·1	+32	− 3½	+16	− 2½	−12	− 8
Leather, leather goods and fur	−0·1	−0·1	−0·2	*	*	*	− 1	− 1½	− 1
Clothing and footwear	+0·8	−0·2	+0·8	+10	− 1	+ 2½	− 5½	− 5	− 5
Bricks, pottery, cement and glass	+1·0	+0·1	+1·1	+12	*	+11	+ 6	− ½	+ 4½
Timber, furniture, etc	−0·2	Nil	−0·2	− 1½	*	− 1	+ ½	− 3	Nil
Paper, printing and publishing	−0·1	−0·5	−0·6	− ½	− 4½	− 2	+ 5	+ 2	+ 4
Other manufacturing industries	+0·8	+0·5	+1·3	+ 7	*	+ 9	+ 9	+ 3½	+ 7
Total MANUFACTURING INDUSTRIES	+10·9	+5·8	+16·8	+ 4	+ 6	+ 4½	+ 1½	− 1	+ ½
CONSTRUCTION	+15·5	+0·5	+16·0	+17	*	+18	+13	+18	+14
Gas, electricity and water	+2·8	+0·6	+3·4	+13	*	+14	+ 8	+17	+ 9
Transport and communication	+1·3	+0·1	+1·4	+ 1½	+ 1	+ 1½	− 1	+ 2	− ½
Distributive trades	+5·2	+8·6	+13·7	+ 6	+11	+ 8	+ 3½	+ 7	+ 6
Insurance, banking and finance	+1·9	+3·1	+5·0	+15	+34	+23	+12	+20	+16
Professional and scientific services	+7·5	+19·2	+26·7	+17	+22	+20	+17	+16	+17
Miscellaneous services	+8·5	+4·0	+12·5	+16	+ 5	+ 9	+15	+ 6	+10
Public administration	+1·8	+1·3	+3·1	+ 2½	+ 6	+ 3½	+ ½	+ 6	+ 2½
Total SERVICE INDUSTRIES (Construction not included)	+29·0	+36·8	+65·8	+ 8	+12	+10	+ 6	+10	+ 8
Total SERVICE INDUSTRIES (including construction)	+44·5	+37·3	+81·8	+10	+12½	+11	+ 8	+11	+ 9
Total ALL INDUSTRIAL ORDERS	+45·5	+43·9	+89·4	+ 6	+11	+ 7	+ 2½	+ 6	+ 4

Notes.

1 Percentages have been rounded to the nearest ½% or 1%, depending on whether the change was above or below 5% Percentage changes have not been given where the numbers employed are under 5,000

2 These statistics exclude Poole. Employment in Poole has been rising at an annual average rate of about 3%; the rise has been slightly greater in the manufacturing sector than in the services sector

*The figure cannot be calculated within acceptable margins of error.

APPENDIX 13

Distribution of employment by major sectors, 1965*

Employees in employment and proportion of total employment in each area

Area	Major economic sectors						Total
	Extractive		Manufacturing		Services and construction		
	Employees in employment	Proportion of total employment in area	Employees in employment	Proportion of total employment in area	Employees in employment	Proportion of total employment in area	Employees in employment
	'000	%	'000	%	'000	%	'000
GREAT BRITAIN	**1,110·6**	**5**	**8,848·7**	**38**	**13,190·0**	**57**	**23,147·0**
SOUTH WEST	71·5	6	401·5	30	853·1	64	1,326·1
Northern	20·5	3	258·9	38	398·4	59	677·7
North Gloucestershire	7·8	4	69·9	39	101·4	57	179·2
Bristol-Severnside	7·5	2	134·0	36	233·8	62	375·3
North Wiltshire	5·1	4	54·9	45	63·2	51	123·2
Central	19·5	8	63·9	26	158·4	66	241·8
Wellington-Westbury	7·0	7	32·6	34	56·0	59	95·6
South East	12·6	9	31·3	21	102·4	70	146·3
Southern	12·3	5	60·5	22	198·2	73	269·0
Exeter-Torbay	7·9	5	26·2	18	112·9	77	147·0
Plymouth Area	4·3	4	34·3	28	83·4	68	121·9
Western	19·2	14	18·3	13	100·1	73	137·6
West Cornwall	11·5	15	11·5	14	56·4	71	79·4
Bodmin-Exmoor	7·7	13	6·9	12	43·7	75	58·2

*South West Region, excluding Poole

Note: Because of rounding, some totals may differ from the sum of their components.

APPENDIX

14 Share of regional employment within sub-regions/divisions by major sectors, 1965, and comparison with civilian population and area*

Per cent

Area	Proportion of regional employment in each sector			Proportion of total regional employment	Proportion of total regional employment	
	Extractive	Manufacturing	Services and construction		Civilian population	Land area
Northern	29	64	47	51	47	27
North Gloucestershire	11	17	12	14	13	11
Bristol-Severnside	11	33	27	28	25	7
North Wiltshire	7	14	8	9	9	9
Central	27	18	19	18	19	27
Wellington-Westbury	10	8	7	7	7	8
South East	17	8	12	11	12	19
Southern	17	15	23	20	22	20
Exeter-Torbay	11	7	13	11	12	12
Plymouth Area	8	8	10	9	10	8
Western	27	5	12	10	13	26
West Cornwall	16	3	7	6	8	7
Bodmin-Exmoor	11	2	5	4	7	19

*South West Region, excluding Poole

Note Because of rounding, some totals may differ from the sum of their components.

APPENDIX

15 Changes in employees in employment, by major sectors, in 1960-64*

Area	Major economic sectors			Total
	Extractive '000	Manufacturing '000	Services and construction '000	'000
Northern	−3·8	+9·1	+41·0	+46·5
North Gloucestershire	−1·9	+2·6	+ 8·2	+ 8·9
Bristol-Severnside	−0·7	+5·7	+26·4	+31·4
North Wiltshire	−1·0	+0·8	+ 6·4	+ 6·2
Central	−3·5	+1·5	+18·1	+14·2
Wellington-Westbury	−1·1	−0·5	+7·2	+ 5·6
South East	−2·4	+2·0	+8·9	+ 8·6
Southern	−1·9	+6·6	+15·2	+19·0
Exeter-Torbay	−1·1	+1·7	+8·8	+ 9·5
Plymouth Area	−0·6	+3·9	+6·3	+ 9·5
Western	−0·6	+0·4	+8·9	+8·7
West Cornwall	No change	No change	+4·2	+ 4·3
Bodmin-Exmoor	−0·8	+0·4	+4·7	+ 4·4

*South West Region, excluding Poole.

Note Because of rounding, some totals may differ from the sum of their components.

APPENDIX

16 Proportionate changes in employment in major sectors, 1960-64*

Per cent

Area	Males and females: Major economic sectors: Extractive	Manufacturing	Services and construction	All sectors	Females: Major economic sectors: Manufacturing	Services and construction	All sectors
GREAT BRITAIN	−15	+½	+8	+4	−1	+10	+6
SOUTH WEST	−11	+4½	+11	+7	+6	+12	+11
Northern	−13	+3½	+12	+7	+2½	+14	+10
North Gloucestershire	−17	+4	+9	+5	+1	+9	+7
Bristol-Severnside	−8	+4½	+13	+9	+1	+16	+11
North Wiltshire	−15	+1½	+11	+5	+8	+15	+12
Central	−14	+2½	+11	+8	+2	+14	+11
Wellington-Westbury	−13	−1½	+16	+6	−2	+16	+9
South East	−15	+7	+9	+6	+7	+13	+12
Southern	−12	+10	+9	+8	+26	+9	+12
Exeter-Torbay	−11	+7	+9	+7	+10	+8	+8
Plymouth Area	−†	+13	+8	+8	+44	+11	+17
Western	−3	+2	+10	+7	†	+10	+10
West Cornwall	no change	no change	+8	+6	†	+7	+7
Bodmin-Exmoor	−7	+6	+12	+6	†	+15	+15

*South West Region, excluding Poole.
†Figures cannot be calculated within acceptable margins of error.

APPENDIX 17

Industrial distribution of 1965 employment in manufacturing units which had moved into South West Region since the beginning of 1945

Industrial Order	1965 employment in units which moved into South West Region since 1945 No.	Approximate percentage of new unit employment to total regional employment in relevant industry %
Food, drink and tobacco:		
Food and drink (7)	900	under 5
Chemicals and allied industries:		
Chemicals (6)	1,100	9
Metal manufacture (3)	..	..
Engineering and electrical goods		
Machinery, machine tools, etc. (33)	6,200	11
Industrial plant, engines, etc. (2)	..	..
Ordnance and small arms (1)	..	..
Scientific instruments, watches, clocks (8)	1,700	18
Radio and other electronic apparatus (12)	3,800	26
Other electrical engineering (8)	1,900	11
Shipbuilding and marine engineering (1)	..	..
Vehicles:		
Motor vehicles, etc. (4)	..	}15
Other vehicles (mainly aircraft and aerospace) (4)	..	
Metal goods not elsewhere specified (14)	1,100	9
Textiles (mainly man-made fibres) (3)	..	..
Leather, leather goods and fur (3)	..	..
Clothing and footwear:		
Clothing (14)	2,200	15
Footwear (1)	..	..
Bricks, pottery, glass, cement, etc. (7)	400	under 5
Timber, furniture, etc (7)	1,100	6
Paper, printing and publishing (7)	500	under 5
Other manufacturing industries:		
Plastics (6)	500	15
Other manufacturing industries (4)	..	5
TOTAL (165)	35,700	9

.. Figures not publishable
Figures in brackets denote number of 'movement' units in operation at the end of 1965

APPENDIX

21 Ports—foreign and coastwise traffic, 1965

Thousand tons

	Basic materials				Fuels				Other traffic				Total
	Foreign		Coastwise		Foreign		Coastwise		Foreign		Coastwise		
	Imports	Exports	Inwards	Outwards	Imports	Exports	Inwards	Outwards	Imports	Exports	Inwards	Outwards	
Bristol	930	21	17	45	1,048	91	2,734	595	2,293	213	47	180	8,213
Poole	34	11	25	4	–	2	778	–	24	13	18	1	908
Weymouth	9	–	–	–	–	–	–	–	38	34	–	–	82
Exmouth	13	–	–	1	–	11	18	–	5	–	1	–	49
Exeter	7	–	–	–	–	–	22	–	1	1	–	–	32
Teignmouth	4	267	–	–	–	–	58	–	3	–	2	–	333
Dartmouth	19	–	–	–	–	–	7	–	2	–	–	–	28
Plymouth	99	187	–	122	17	32	974	–	128	8	51	4	1,521
Fowey	–	605	–	25	–	–	1	–	–	–	–	–	630
Par	11	570	1	186	1	–	58	–	–	–	–	–	925
Charlestown	–	1	–	32	–	–	15	–	1	–	3	–	53
Truro	5	–	1	–	–	3	25	–	8	–	7	–	49
Falmouth	–	–	–	–	64	1	178	48	–	–	–	–	291
Penzance	–	–	–	–	–	2	49	–	3	–	–	–	54
Newlyn	–	–	–	–	–	–	–	–	–	–	–	380	380
Hayle	3	–	–	2	–	–	140	–	4	–	10	–	159
Padstow	–	–	–	–	–	–	1	–	–	–	–	–	1
Bideford	5	–	1	–	–	–	8	–	–	–	1	–	16
Bridgwater	32	–	–	–	–	–	274	–	15	–	15	–	337
Sharpness	–	50	90	–	–	–	556	23	50	8	93	7	874
Lydney	–	–	34	–	–	–	–	–	–	–	–	–	34
Total: Smaller Ports	241	1,791	152	372	82	51	3,162	71	280	82	199	392	6,855
Total: South West Region	1,171	1,812	169	417	1,130	142	5,896	566	2,573	275	246	572	15,068
Great Britain	38,482	3,722	3,537	1,957	82,489	15,501	46,990	53,514	29,995	15,957	2,689	3,973	298,806

Note Because of rounding, some totals may differ from the sum of their components.

APPENDIX

22 Earnings of Men Manual Workers in Selected Industries, 1964 and 1965

Industrial Order	Weekly earnings in South West Region	
	% of United Kingdom average	% of regional average
Food, drink and tobacco	98·1	88·6
Chemicals and allied industries	103·6	114·4
Metal manufacture	97·2	111·8
Engineering and electrical goods	94·8	102·4
Shipbuilding and marine engineering	99·0	105·8
Vehicles	93·8	117·5
Metal goods not elsewhere specified	95·1	102·6
Textiles	97·8	94·4
Leather, leather goods and fur	98·3	92·3
Clothing and footwear	109·0	102·2
Bricks, pottery, glass, cement, etc.	93·0	101·4
Timber, furniture, etc.	89·5	91·8
Paper, printing and publishing	88·7	109·7
Other manufacturing industries	87·9	105·9
All manufacturing industries	96·1	105·6
Mining and quarrying (except coal)	98·3	102·0
Construction	92·1	96·1
Gas, electricity and water	96·7	97·0
Transport and communication*	96·0	101·3
Certain miscellaneous services†	93·9	83·9
Public administration‡	100·3	81·9
All the above including manufacturing industries	93·7	100·0

*Excluding railways, London Transport and British Road Services

†Consisting of laundries and dry cleaning, motor repairers and garages and repair of boots and shoes

‡Industrial employees in national government service have, as appropriate, been included in the figures for industries such as engineering, shipbuilding, chemicals, printing, construction, transport and communication. Public administration covers *a* those employees not assigned to other industries and services and *b* employees in certain government research establishments

APPENDIX

21 Ports—foreign and coastwise traffic, 1965

Thousand tons

	Basic materials				Fuels				Other traffic				Total
	Foreign		Coastwise		Foreign		Coastwise		Foreign		Coastwise		
	Imports	Exports	Inwards	Outwards	Imports	Exports	Inwards	Outwards	Imports	Exports	Inwards	Outwards	
Bristol	930	21	17	45	1,048	91	2,734	595	2,293	213	47	180	8,213
Poole	34	11	25	4	–	2	778	–	24	13	16	1	908
Weymouth	9	–	–	–	–	–	–	–	38	34	–	–	82
Exmouth	13	–	–	1	–	11	18	–	5	–	1	–	49
Exeter	7	–	–	–	–	–	22	–	1	1	–	–	32
Teignmouth	4	267	–	–	–	–	58	–	3	–	2	–	333
Dartmouth	19	–	–	–	–	–	7	–	2	–	–	–	28
Plymouth	99	187	–	122	17	32	974	–	126	8	51	4	1,621
Fowey	–	605	–	25	–	–	1	–	–	–	–	–	630
Par	11	670	1	186	1	–	58	–	–	–	–	–	925
Charlestown	–	1	–	32	–	–	15	–	1	–	3	–	53
Truro	5	–	1	–	–	3	25	–	8	–	7	–	49
Falmouth	–	–	–	–	64	1	178	48	–	–	–	–	291
Penzance	–	–	–	–	–	2	49	–	3	–	–	–	54
Newlyn	–	–	–	–	–	–	–	–	–	–	–	380	380
Hayle	3	–	–	2	–	–	140	–	4	–	10	–	159
Padstow	–	–	–	–	–	–	1	–	–	–	–	–	1
Bideford	5	–	1	–	–	–	8	–	–	–	1	–	18
Bridgwater	32	–	–	–	–	–	274	–	15	–	15	–	337
Sharpness	–	50	90	–	–	–	556	23	50	6	93	7	874
Lydney	–	–	34	–	–	–	–	–	–	–	–	–	34
Total: Smaller Ports	241	1,791	152	372	82	51	3,162	71	280	62	199	392	6,855
Total: South West Region	1,171	1,812	169	417	1,130	142	5,896	666	2,573	275	246	572	15,068
Great Britain	38,482	3,722	3,537	1,957	82,489	15,501	46,990	53,514	29,995	15,957	2,689	3,973	298,806

Note Because of rounding, some totals may differ from the sum of their components.

APPENDIX

22 Earnings of Men Manual Workers in Selected Industries, 1964 and 1965

Industrial Order	Weekly earnings in South West Region	
	% of United Kingdom average	% of regional average
Food, drink and tobacco	98·1	98·6
Chemicals and allied industries	103·6	114·4
Metal manufacture	97·2	111·8
Engineering and electrical goods	94·8	102·4
Shipbuilding and marine engineering	99·0	105·8
Vehicles	93·8	117·5
Metal goods not elsewhere specified	95·1	102·6
Textiles	97·8	94·4
Leather, leather goods and fur	98·3	92·3
Clothing and footwear	109·0	102·2
Bricks, pottery, glass, cement, etc.	93·0	101·4
Timber, furniture, etc.	89·5	91·8
Paper, printing and publishing	88·7	109·7
Other manufacturing industries	97·9	105·9
All manufacturing industries	96·1	105·6
Mining and quarrying (except coal)	98·3	102·0
Construction	92·1	96·1
Gas, electricity and water	96·7	97·0
Transport and communication*	96·0	101·3
Certain miscellaneous services†	93·9	83·9
Public administration‡	100·3	81·9
All the above including manufacturing industries	93·7	100·0

*Excluding railways, London Transport and British Road Services.
†Consisting of laundries and dry cleaning, motor repairers and garages and repair of boots and shoes.
‡Industrial employees in national government service have, as appropriate, been included in the figures for industries such as engineering, shipbuilding, chemicals, printing, construction, transport and communication. 'Public administration' covers *a* those employees not assigned to other industries and services and *b* employees in certain government research establishments.

APPENDIX

23 Dwellings Completed, 1945-65

Area	Civilian population, 1965	Number of dwellings completed 1945–65*	New dwellings completed per 1,000 population 1945–65		
	'000	'000	Total	Local authority	Private enterprise
SOUTH WEST	**3,828**	**381·4**	**105**	**52**	**53**
Northern	1,649	183·0	111	57	54
North Gloucestershire	444	50·3	114	54	60
Bristol-Severnside	679	92·7	105	55	50
North Wiltshire	326	40·0	123	56	55
Centre!	767	83·3	108	52	56
Wellington-Westbury	239	25·5	107	59	48
South East	528	57·8	110	49	61
Southern	768	79·8	104	50	54
Exeter-Torbay	434	46·1	107	43	64
Plymouth area	334	33·5	101	59	42
Western	444	35·5	79	38	41
West Cornwall	244	20·4	84	41	43
Bodmin-Exmoor	201	15·1	75	35	40

*Excludes dwellings completed by government departments, which amounted to 12,965 over the 1945-65 period.

Note. Because of rounding, some totals may differ from the sum of their components

APPENDIX

24 Estimates of sub-standard dwellings

Area	Local authority estimates of unfit dwellings as at 1965		Domestic amenities 1961						Dwellings with rateable value not exceeding £30 as at April 1st 1965		Estimated dwellings over 100 years old in 1961	
			Dwellings without piped water		Dwellings without fixed bath		Dwellings without water closet					
	No.	% of existing stock	No.	% of existing stock	No.	% of existing stock	No.	% of existing stock	No.	% of existing stock	No.	% of existing stock in 1965
ENGLAND AND WALES	**823,719**	**5·5**	**241,701**	**1·7**	**3,084,381**	**21·7**	**999,510**	**7·1**	**2,453,922**	**16·9**	..	..
SOUTH WEST	**23,300**	**2·0**	**36,900**	**3·4**	**213,400**	**19·5**	**93,400**	**8·5**	**170,100**	**15·0**	**232,200**	**19·8**
Northern	12,000	2·3	10,900	2·3	65,900	17·9	34,800	7·2	61,200	12·2	79,600	15·4
North Gloucestershire	3,500	2·5	6,300	4·1	27,900	21·5	15,100	11·7	29,700	21·0	19,300	13·8
Bristol-Severnside	6,300	2·3	3,100	1·2	40,900	15·7	10,700	4·1	17,700	6·5	47,000	15·6
North Wiltshire	2,200	2·2	2,500	2·8	17,200	19·0	9,000	9·9	14,600	15·5	13,300	13·4
Centrel	4,300	1·7	7,200	3·1	43,400	16·6	23,300	10·0	37,200	15·5	56,800	23·0
Wellington-Westbury	1,200	1·6	2,200	3·1	14,900	20·5	6,600	9·3	14,400	19·4	27,400	35·6
South East	3,100	1·8	5,000	3·1	26,600	17·6	16,700	10·8	22,600	13·7	29,400	17·3
Southern	3,000	1·2	6,300	2·7	40,200	17·2	12,900	5·5	26,400	11·0	43,400	17·2
Exeter-Torbay	1,400	1·0	3,800	2·9	22,800	16·9	7,900	5·8	15,000	10·6	19,300	13·1
Plymouth Area	1,600	1·5	2,500	2·5	17,400	17·9	5,000	5·1	11,400	11·5	24,100	22·8
Western	4,000	2·9	12,500	8·6	43,900	30·3	22,400	15·5	45,300	29·7	52,400	34·2
West Cornwall	2,300	2·7	6,100	10·1	20,600	33·5	14,200	17·8	20,600	31·2	26,300	31·0
Bodmin-Exmoor	1,700	2·5	4,400	9·6	17,100	20·4	8,200	12·7	16,700	27·9	26,100	38·3

.. Figures not available.

APPENDIX

25 Estimated civilian population changes, 1964-81

Area	1964 mid-year civilian population		1964–81 estimated natural increase	1964–81 estimated net migration*	1964–81 estimated total change		1981 estimated population	
	No. '000	Proportion of regional total %	No. '000	No. '000	No. '000	%	No. '000	Proportion of regional total %
SOUTH WEST	**3,584**	**100·0**	**324**	**372**	**696**	**19·4**	**4,280**	**100·0**
Northern	1,626	46·4	199	154	363	22·3	1,989	46·5
North Gloucestershire	437	12·2	54	51	105	24·0	542	12·7
Bristol-Severnside	870	24·3	92	59	151	17·4	1,021	23·8
North Wiltshire	319	8·9	53	54	107	33·5	426	10·0
Central	758	21·1	57	107	154	21·6	922	21·6
Wellington-Westbury	236	6·5	19	30	49	20·8	285	6·7
South East	522	14·5	38	77	115	22·0	637	14·9
Southern	759	21·2	45	84	129	17·0	888	20·7
Exeter-Torbay	429	12·0	12	83	95	22·1	524	12·2
Plymouth Area	331	9·2	33	1	34	10·3	364	8·5
Western	441	12·3	23	17	40	9·1	481	11·2
West Cornwall	241	6·7	14	14	28	11·6	269	6·3
Bodmin-Exmoor	200	5·6	9	3	12	6·0	212	4·9

*Includes effect on natural increase resulting from migration

Note. Because of rounding some totals may differ from the sum of their components.

APPENDIX

26 Illustrative list of 100 of the larger industrial firms, etc., in the South West Region

Industrial Order	*Name of Firm*
Mining and quarrying	English Clays Lovering Pochin & Co. Ltd.
	National Coal Board
Food, drink and tobacco	Bowyers (Wiltshire) Ltd.
	Brains (Food Products) Ltd.
	British Oil and Cake Mills Ltd.
	Carsons Ltd
	Co-operative Wholesale Society Ltd.
	Courage (Western) Ltd.
	Farley's Infant Foods Ltd.
	J. S. Fry & Sons Ltd
	Hale-Trent Cakes Ltd.
	C. & T. Harris (Calne) Ltd.
	W. D. & H. O. Wills
	Parkers Bakeries Ltd.
	James Robertson & Sons Preserve Manufacturers Ltd
	Showerings Ltd.
	Spillers Ltd.
	Unigate Creameries Ltd.
	T. Wall & Sons (Ice Cream) Ltd.
	West Country Breweries Ltd.
Chemicals and allied industries	B. P. Plastics Ltd.
	British Drug Houses Ltd
	John Hall & Son (Bristol & London) Ltd.
	Imperial Chemical Industries Ltd.
	Ministry of Defence (Army Dept.)
	Wellington Weston & Co. Ltd.
Metal manufacture	Imperial Smelting Corporation (N.S.C.) Ltd.
Engineering and electrical goods	Associated Electrical Industries Ltd.
	Asterон Bird Ltd.
	Brecknell, Dolman & Rogers Ltd.
	Bryce Berger Ltd.
	Dowty Group Services Ltd.
	Dowty Mining Equipment Ltd.
	E.M.I. Electronics Ltd.
	Fielding & Platt Ltd.
	Garrard Engineering Co. Ltd.
	Gloster Saro Ltd.
	Hoffman (Gloucester) Ltd.
	Holman Bros. Ltd.
	The Horstmann Gear Co. Ltd.
	R. A. Lister & Co. Ltd.
	Marine Mountings Ltd.
	Newman Hender & Co. Ltd.
	Newman Industries Ltd.
	Parnall & Sons Ltd.
	Parnall (Yate) Ltd.
	Permali Ltd.
	The Plessey Co. Ltd.
	Ranco Controls Ltd.
	Rank Bush Murphy Ltd.
	Rank Xerox Ltd.
	Smiths Industries Ltd.
Engineering and electrical goods (continued)	Spencer (Melksham) Ltd.
	"Square D" Ltd.
	Standard Telephones & Cables Ltd.
	Stothert & Pitt Ltd.
	Strachan & Henshaw Ltd.
	Tecalemit (Engineering) Ltd.
	Thrissell Engineering Co. Ltd.
	Wellworthy Ltd.
	Westinghouse Brake & Signal Co. Ltd.
	Winget Ltd.
Shipbuilding and marine engineering	Ministry of Defence (Navy Dept.)
	Silley, Cox & Co. Ltd
Vehicles	Bristol Aerojet Ltd.
	Bristol Commercial Vehicles Ltd.
	Bristol Siddeley Engines Ltd.
	British Aircraft Corp. (Operating) Ltd.
	British Rail Workshops
	Centrax Ltd.
	Douglas (Kingswood) Ltd.
	Dowty Rotol Ltd.
	Dowty Fuel Systems Ltd.
	Flight Refuelling Ltd.
	Normalair Ltd.
	Pressed Steel-Fisher Ltd
	Teleholst Ltd.
	Vickers Ltd
	Westland Aircraft Ltd.
Metal goods not elsewhere specified	The Metal Box Co. Ltd.
Textiles	Fox Brothers & Co. Ltd.
	John Heathcoat & Co. Ltd.
	I.C.I. Fibres Ltd.
Leather, leather goods and fur	Clark, Son & Morland Ltd.
Clothing and footwear	The British Van Heusen Company Ltd.
	G. B. Britton & Sons Ltd
	C. & J. Clark Ltd.
Timber, furniture, etc.	Factories Direction Ltd.
Paper, printing and publishing	Ashton Containers Ltd.
	The Bristol United Press Ltd.
	Colodense Ltd.
	Mardon, Son & Hall Ltd.
	Purnell & Sons Ltd.
	E. S. & A. Robinson Ltd.
	St. Anne's Board Mill Co. Ltd.
Other manufacturing industries	J. Allen Rubber Co. Ltd.
	Avon Rubber Co. Ltd.
	British Cellophane Ltd.
	Dowty Seals Ltd.
	The Kleen-e-ze Brush Co. Ltd.

Notes

1 The basis of the list is the size of the operating company as determined by aggregate employment in 1966 at those of its establishments in the Region operating under a common name

2 The list includes some public organisations as well as firms.

3 Every attempt has been made to represent correctly the titles of firms and to include all firms whose volume of employment brings them into the list.

4 Firms are listed under the relevant Industrial Orders of the Standard Industrial Classification (revised 1958). Where a firm has production units of the same name classified under more than one SIC Order it is shown only under the Order in which its employment is largest.

APPENDIX

27 Housing need and land availability, 1965-81

Thousands

Area	Total stock of dwellings 1965	New houses required for current numerical deficiencies and for household growth (see note 1) 1965–81	Range of new houses required for replacement need (through slum clearance, obsolescence, redevelopment) 1965–81		Range of need 1965–81 Cols. 3 + 4	Cols. 3 + 5	Range of allowance for vacancies etc. (see note 2) 1965–81		Range of total housing need 1965–81 Cols. 6 + 8	Cols. 7 + 9	Estimated maximum potential residential sites (see note 3) 1965–81
1	2	3	4	5	6	7	8	9	10	11	12
SOUTH WEST	**1,172·2**	**197·1**	**100·0 –**	**200·0**	**297·1 –**	**397·1**	**6·9 –**	**11·9**	**306·0 –**	**409·0**	**466·9**
Northern	518·7	106·1	34·0 –	68·0	140·1 –	174·1	4·2 –	5·2	144·3 –	179·3	199·8
North Gloucestershire	139·9	31·4	8·5 –	17·0	39·9 –	48·4	1·2 –	1·4	41·1 –	49·8	45·4
Bristol-Severnside	279·5	40·4	20·0 –	40·0	60·4 –	80·4	1·8 –	2·4	62·2 –	82·8	103·7
North Wiltshire	99·3	34·3	5·5 –	11·0	39·8 –	45·3	1·2 –	1·4	41·0 –	46·7	50·7
Central	247·7	50·7	24·0 –	46·0	74·7 –	98·7	2·2 –	3·0	76·9 –	101·7	82·6
Wellington-Westbury	77·1	14·0	11·5 –	23·0	25·5 –	37·0	0·8 –	1·1	26·3 –	38·1	31·8
South East	170·6	36·7	12·5 –	25·0	49·2 –	61·7	1·4 –	1·9	50·6 –	63·6	50·6
Southern	252·7	33·4	19·0 –	38·0	52·4 –	71·4	1·6 –	2·1	54·0 –	73·5	126·1
Exeter-Torbay	147·1	24·1	8·5 –	17·0	32·6 –	41·1	1·0 –	1·2	33·6 –	42·3	68·8
Plymouth Area	105·6	9·3	10·5 –	21·0	19·8 –	30·3	0·6 –	0·9	20·4 –	31·2	57·3
Western	153·1	8·9	23·0 –	46·0	29·9 –	52·9	0·9 –	1·6	30·8 –	54·5	58·5
West Cornwall	85·0	5·4	11·5 –	23·0	16·9 –	28·4	0·5 –	0·8	17·4 –	29·2	30·6
Bodmin-Exmoor	68·1	1·5	11·5 –	23·0	13·0 –	24·5	0·4 –	0·8	13·4 –	25·3	28·0

Notes 1 *Column 3* Current 'surpluses' of housing in some sub-divisions are excluded from the estimates of current numerical deficiencies

2 *Columns 8 and 9* If other elements of housing need are to be fully met, an allowance for 'vacancies' must be made—i.e. houses which will be standing empty at any one time through removals, or second home ownership, and housing losses through demolition for road works, etc. An allowance of 3% of the estimated range of need in Columns 6 and 7 has been made for these purposes.

3 *Column 12* The estimates of maximum numbers of potential residential sites are based on sample returns made by the local planning authorities in 1966.

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Administrative County Boundaries
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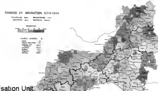
2 South West
Civilian Population Changes



3 South West
Amenity Areas